

THE CULTIVATOR.

NEW

"TO IMPROVE THE SOIL AND MIND."

SERIES.

VOL. V.

ALBANY, JUNE, 1848.

No. 6.

THE FARM OF CLARK RICE, ESQ.

MESSEURS. EDITORS—I was much gratified, in a recent visit to the farm of CLARK RICE, Esq., in Dummerston, Vt., to find so triumphant an illustration of the profitable results of enterprise and good judgment, in seizing hold of the natural advantages of the farm, and appropriating them to use. These advantages consist in an abundant supply of swamp muck of fine quality, and the power to obtain and hold a large quantity of *surface water* for the purpose of irrigation. Mr. RICE's farm is mainly a grass farm, hay being the most profitable crop for his location and soil, and his operations are therefore conducted with a view to the raising of a large burden of grass, of good quality.

He has recently erected new barns which are remarkably convenient and well arranged; the main barn is 160 feet in length, east and west, by 30 feet in width, with ample shed lofts, and a horse barn and carriage house annexed. The ground upon which the barn is built is descending to the east, and under a portion of it is spacious barn cellar for the manufacture of compost, 100 feet long by 30 wide, open 24 feet on the southeast end; the lower side, or east end of the barn-yard, being on a level with the cellar bottom, affords a convenient passage into and out of it from the yard.

The liberal use of muck enables Mr. RICE to sell off large quantities of hay without detriment to the farm. He usually winters from 30 to 40 head of cattle, however, about half of which are stall fed, and the manure from these, composted with muck, together with other means of making compost hereafter described, affords him all the manure necessary for the improvement of his land, making and applying about 500 loads annually.

Management of Muck.

His bed of muck covers a number of acres from 6 to 8 feet in depth, and is a vegetable deposit of the finest quality. The original growth of timber on the adjoining land, was hard wood mainly, and whatever wash there may ever have been of an extensive area of higher land around the swamp, would naturally flow into it. Excellent arrangements have been made for the thorough drainage of the swamp, which will be more particularly described in speaking of his system of irrigation. The main body of the muck, except from March to the middle of June, when the gates are shut and the swamp filled with water for irrigation, lies high and dry from moisture to the depth of 5 or 6 feet, and can be got out at any time of the year, when most convenient to do the work. Two or three times in the course of the winter, a quantity sufficient for a layer of a foot in depth over the whole cellar, is taken directly from the swamp on sleds, and thrown in, it being but a short distance from the barn, and the ground a little descending.

In the fall, a coat of muck a foot in depth, is deposited over the cellar bottom, and when a sufficient quantity of manure has accumulated under the scuttles in the stable floors to cover the muck 8 or 10 inches thick, the same is spread, and another coat of muck put over the manure; repeating these operations from time to time, through the winter and spring, until the cattle are turned to grass. An immense quantity of compost is thus formed, and, judging from the smell and appearance, of the finest quality. A part of the muck is dumped through a scuttle in the barn floor into the cellar, and a part is thrown in through windows in the underpinning, and what cannot be conveniently spread from these heaps with the shovel, is taken up on wheel barrows, running on a plank, and distributed in due proportion; the design being to incorporate two parts of muck to one of manure. A larger proportion of muck is kept under the stable floors, where the urine flows, than elsewhere, and this saturated muck is spread into the middle of the cellar from time to time, in order to equalize the whole mass.

The compost lays in this state until after the spring work is done, when at odd jobs, such as rainy days and other days of leisure, it is forked over from end to end. After haying, it is carted out on to the land where wanted for the next spring's use. None of it is applied to the soil until a year old—Mr. RICE being of opinion that composts, where large proportions of muck are used, require to be fully ripened by age and fermentation, in order to derive the greatest benefit from their application to the soil.

Mr. RICE has been in the habit of applying 50 loads to the acre; 25 loads spread on the turf and plowed in, and 25 loads spread on the furrows and harrowed in. He has come to the conclusion, however, from recent trials with a view to ascertain the proper depth to bury compost, that he shall in future introduce the plow two or three inches deeper in breaking up his sward land, which his present facilities for making compost will warrant, and spread the whole dressing on top of the furrow, incorporating it thoroughly with the soil above the sod.

The building appropriated to the horse barn and carriage house has a cellar under the whole of it, and the manure of two or three horses goes into the part under the stables, into which muck is also thrown, from time to time, and 6 or 8 working hogs are faithful to their business of mingling and pulverizing the materials with which they are supplied. Bedding is freely used under the horses to augment the mass. Under the carriage house is the feeding apartment, also a kettle and arch for cooking their feed, and storage for the materials.

There is still another cellar adjoining this, which receives all the wash of the house and the night soil, and which is liberally supplied with muck to absorb it as occasion requires. The objection to such places generally is that they are difficult of access, but in this case it is entirely obviated, the cellar being sufficiently capacious to back a cart into it.

The barn-yard is constructed differently from any I have before seen. The main yard, where the fatting cattle run, is slightly descending to the east to another yard, which is well supplied with muck, and is calculated to receive the wash or superabundant moisture of the former. This arrangement gives him a yard free from mire and water, which at certain times is deemed essential to the comfort of the fat cattle, and to his own comfort and convenience in carting to and from the barn such large quantities of hay, &c. During the day the coarser forage of the farm is mainly fed out in the lower yard to the cows and young cattle, which run there, and the refuse of it is incorporated with muck by the treading of the cattle. Occasionally in the course of the winter, a moderate coat of muck is spread over it, this being deemed better policy than to put the whole quantity of muck that the yard will bear into it at once, in the fall. After planting in the spring, the contents of this yard are carted out into a heap for fermentation; it is immediately supplied with muck again, and the cows are yarded on it over night through the summer, excepting when too wet and miry from heavy rains, when they are for a few days turned into the upper or dry yard. In the fall, the contents are again carted out, and a fresh covering of muck put in for winter. The litter, &c., of the upper yard is also carted out in the spring and composted with muck, in all cases designing to use two parts of muck to one of manure.

Irrigation.

Mr. RICE's system of irrigation is in the highest state of perfection. At the breaking up of winter quite a brook is formed from the rains and melting of the snow. It may be termed surface water from the adjoining high lands, and probably its marked effects in increasing the quantity and quality of grass, may be attributable in a great measure, to the fact that it is thus formed, and not a living stream fed by springs.

A large embankment of earth has been thrown up on the lower side of the swamp, the other sides being surrounded by higher lands, and thus a large reservoir is made into which this temporary stream is conducted, and with which it is filled in March, and after, to the depth of several feet. Gates are constructed in the embankment to draw off this accumulation of water as wanted for irrigation, and they are also calculated for the thorough drainage of the swamp. The water is conducted in ditches at different heights, over 50 acres of grass land, which lies more or less descending from the swamp. The ditches run across the land at right angles with its descent, and the water is taken out of them by small outlets, made at suitable distances in the lower sides, so as to flow gently over the whole land.

The water is not let on to the land till after the frost is out in the spring, on account of its liability to wash holes by getting under the frozen ground; neither is it continued on the land after about the middle of June, or when the grass has grown so as to cover the ground completely; if continued on longer, the quality of the hay is injured. Mr. RICE considers that the greatest benefit is derived from the irrigation in April and May, on account of the early and vigorous growth it imparts to the grass;—this effect is no doubt increased greatly from the fact that the temperature of the water is considerably warmer by standing in the reservoir.

Care and judgment is necessary in managing the ir-

rigation. Mr. RICE frequently passes over the land when under the process, and if any part of it is getting overcharged with water, it is taken off, or if any part is not receiving its portion, the same is supplied as soon as discovered. When heavy rains occur during the irrigation, it is stopped for a time; the object being not to drown the grass roots at all, but to keep them gently moistened.

The contrast between the irrigated land and the land adjoining, which is above the highest ditch and cannot be flowed, is very striking. The latter, although lying more level, and oftener plowed and manured, will not cut as much grass by one-half as the former, neither is the quality as fine. The irrigated land can be kept in productive mowing, much longer than other parts of the farm that have not the benefit of the water, it is occasionally plowed and manured however, and goes through a rotation of crops—no water being let on to any portion that may be under a state of tillage, until it is again in grass. The crop of grass on the irrigated land is not affected by any drouth, however severe, that may occur after the water is taken off,—the land having been well saturated, and the grass completely covering it, prevents the moisture from evaporating. The burden of hay is very heavy, and the quality excellent; the tendency of the irrigation being to produce a thick and fine bottom.

Seeding to Grass in August.

Mr. RICE has several acres of grass land too moist to plow and cultivate in the spring. He obtains fine crops of hay from this land by plowing it in August, when a light coat of compost is spread on top of the furrows and harrowed in; the land is then stocked down to grass again, without sowing to grain. The new seeding is fit for the scythe the next season, although later than the old fields. The process is repeated about every fifth or sixth year, or as often as the more valuable grasses are supplanted by wild grass. He considers this by far the best management of a moist soil.

Improvement of a light, hungry soil.

He has a piece of land rather inconveniently situated to get at with manure, upon which he is trying the following experiment to redeem it from a state of comparative sterility: it is sowed to rye in the fall, and stocked with clover early in the spring; the grain is taken off the next harvest, and the next year after, the growth of clover is plowed in and the same process repeated. The plan has proved very satisfactory thus far, the land yielding more than double the crop it did five or six years ago.

Planting a Forset.

Mr. RICE had, a few years ago, a piece of side hil in pasturing, of rather thin unproductive soil, which he plowed up and sowed to rye, at the same time planting to chestnuts in rows about four feet apart. After the rye was taken off the land was left to run up to a forest. The first growth or sprout from the chestnut was rather crooked and scrubby; but by cutting it close to the ground new sprouts started which grew straight and thrifty, and there is now a good prospect of a fine growth of chestnut timber—an article which is becoming more and more valuable in this section of country.

I have thus given a very imperfect sketch of some of the more important operations of this intelligent and prosperous farmer. His enterprise and skill in the use and application of his muck, together with the appropriation of his natural advantages for irrigation, have told wonderfully upon the productiveness and profit of the farm. Some twenty years ago he commenced operations on a worn-out farm, the whole produce, all told not filling the barn then on the place, 60 by 30 feet

and now, with all his ample barn room, he has none to spare. Among other things, his operations show in a striking manner, the great advantage to be derived on our worn out soils, from a liberal and judicious use of *swamp muck*, and the importance and profit attending a strict husbandry of all the resources on the farm for making and saving manure.

In the language of the chairman of the committee of our agricultural society, for awarding premiums on manure:—"Every animal in the house or in the barn, on this farm, contributes something to swell the immense heap."—"We hope our farmers will soon learn that the process of making manure is not an impoverishing, but an *enriching* process, as is proved in the case of Mr. RICE, of whom his neighbors used to prophesy that this muck-hole would send him to jail. It has proved however, that in digging muck, he was digging money, instead of landing in jail."

It is evident to any one, in conversing with Mr. RICE and witnessing the operations of his farm, that he unites extensive agricultural reading with the most close and minute observation. He is a hard-working, practical man; and he has adopted no new theory or practice simply because *new*, or continued in an old one because old; but with excellent sense he has adopted those suggestions, from whatever source derived, that seemed applicable to his soil and condition. Starting in life with nothing but a willing mind and a doing hand, he has risen to his present position by the force of his own enterprise and good judgment. He has been compelled to advance slowly and cautiously in his improvements, making them no faster than they would pay for themselves, and now he has a farm and plan of operations that may safely challenge competition.

In this example we see, forcibly illustrated, the value of agricultural reading, to the farmer who has the

good sense to follow those suggestions that are applicable to his soil, location and means. It is not to be expected that every practically written article published in an agricultural journal of wide circulation, can be of universal application, for soils, localities as to markets, &c., &c., must necessarily vary. The farmer, therefore, who fails to exercise suitable judgment in following the suggestions of others, has mainly to blame himself, probably, if he meets with disappointments; and instead of commencing a tirade against everything that is written by others, he may as well exclaim of himself:—

"Poor Johnny Raw, what madness could impel,
So *run* a flat to face so prime a swell."

How many young farmers, commencing in life with heavy mortgages upon them, pursue the mistaken course of cutting off their wood and timber, plowing up their pastures every few years for a grain crop, without even sowing grass seeds, and inventing every other possible means to cheat "mother earth" of a crop, without returning her any equivalent;—in other words, "destroying the goose that lays the golden egg,"—and all from the plea that they are in debt. Let all such be reminded by the example of Mr. RICE, that this is not the true policy. Like him, let them seize hold of every means the farm affords for making and saving manure, thus increasing the crops and the reward of their labor, affording a more sure and expeditious means of liquidating mortgages, with a farm left worth cultivating; a farm upon which they may live in independence, with the pleasing reflection, in the evening of life, that theirs is an example safely to be followed by their children.

Further remarks, suggested by the example of this farmer, might be pursued, but the unwarrantable length of this communication admonishes me to forbear.

F. HOLBROOK.

Brattleboro, Vt. January 6, 1848.

MANUFACTURE OF CHEESE.

(Mr. Fish's Essay, concluded from page 154.)

PRESSING.—When curd is properly tempered for pressing, a cotton or linen cloth is spread over the hoop, the curd is put in and pressed with from three to twelve tons weight, turned twice in eight-and-forty hours, into clean dry cloth. The press should be sure to follow down as the curd yields (when young,) to press out whey before a rind is formed to prevent its escape. There is no danger of too much pressure, *after the first ten minutes*. The press, hoops, cloths, &c., should be cleaned with lye *often*, to keep the rind from cracking. The cloth is taken from the cheese when it is taken from the hoop. The cheese is set on the table for a few hours until dry enough to absorb oil, and then painted with annatto, mixed in strong lye, (from common ashes) kept in a jar for ready use. This toughens the rind so that it will not require much grease after the first coat, to become smooth, if rubbed often with the hand moistened with oil.

The paint will fade to a rich butter color, which is as high a color as is desirable. A firm rind may be formed upon cheese when young, by a careful exposure to drying air, frequently rubbing with the hand, and no more oil than will readily incorporate with the rind. If more grease is used than will be taken up, it will sooner or later flake off, leaving the cheese scabby without rind, exposed to cracks, flies, mould, &c. Oil for greasing cheese is obtained from cream skimmed from whey, (after standing 24 hours;) it is churned till separation takes place like butter, then melted over a slow fire till it is turned to oil. A preparation of bees-

wax, from $\frac{1}{2}$ to $\frac{1}{4}$, mixed with oil, will make a rind impervious to flies.

It is most desirable that cheese designed for foreign markets should be in proportion half as thick as they are wide, and not to exceed 100 lbs. in weight. The size of the hoop may be calculated from the number of gallons of milk; each gallon will make one pound of cheese. A cheese

21 inches wide will weigh 14 $\frac{1}{2}$ lbs to each inch in depth.

20	"	"	12 lbs	"	"
19	"	"	10 $\frac{1}{2}$ lbs	"	"
18	"	"	9 lbs	"	"
17	"	"	8 lbs	"	"
16	"	"	7 lbs	"	"
15	"	"	6 lbs	"	"
14	"	"	5 lbs	"	"

Cheeses of the above proportions are banded with cotton cloth to keep them in shape. The band should not cover more than an inch or inch and a-half of the flat surface. Heavy cheeses must be banded with cloth that will not stretch, or their weight will make them ill-shapen.

In April, 1847, I divided curd into two equal parts, after it was salted, and ready to press, and pressed in equal and varied shapes to ascertain the result of varied heat, salt, &c. April 24th, (see schedule of April.) No. 1 was kept in a room of from 90 to 100 degrees heat; did not huff, but not having rennet enough to keep pace with the heat, soured, was hard, dry and smart; shrunk twelve per cent in sixty days. No. 2,

kept in temperature not exceeding seventy-five degrees, did not huff, cured slow, was soft and mild flavor, shrunk nine per cent in ninety days.

April 26th, doubled rennet; put cheese No. 3 by side of cheese No. 1; No 3 huffed in three days, in twenty days run oil, tainted and spoiled. No. 4 put with No. 2; huffed, cured quick, and was light, porous and sharp. Doubling the amount of salt would control rennet, and keep cheese from huffing; but did not prevent them from souring, becoming hard and unmerchable. The time of curing was in proportion to the amount of heat and rennet used. Some of the high salted cheeses in a hot room, were bitter; but none in the cool room had that flavor, were long curing, shrunk less, and were of better quality. The same course was taken in August, by dividing several days' curd, each day into three equal parts, pressed alike, and exposed to different temperatures in curing. The result was in favor of a medium rate of salt and heat, high salting and heat, making hard smart cheese; low salting and heat, soft, mild, and tasteless; low salting and high heat, porous, soft and sharp.

In 1845, the experiments alluded to, with sixty dairies, being got up expressly for shipment, a selection was made from the largest and most experienced dairymen in thirteen towns. A vigorous effort was made to reduce the whole practice to one general rule, consisting in *strict cleanliness in every department*, an equilibrium of heat in milk to set, not exceeding 90° with pure rennet to curdle milk in forty minutes; curd thoroughly worked by hand till as fine, when scalded, as wheat or corn; curd scalded in whey, with heat not exceeding one hundred degrees, and that heat held until the curd appeared shrunk, and would squeak when pressed between the front teeth. The whey to be drained off, and the curd salted while warm, with 2½ lbs. of refined salt to 100 lbs. of cheese, cooled and pressed forty-eight hours. Cheese half as high as wide.

These leading points, strictly adhered to, were found adequate to produce the article required, where curing rooms were constructed so as to preserve a *uniform moderate temperature*. The cheese, not affected by extreme changes of climate, fermented slowly and uniform, rind firm and smooth with little grease; texture firm and solid, yet malleable like butter; the flavor mild and pleasant. The weather being cool till June, a great uniformity was manifest in shape and texture. A sudden change of weather to 88 degrees, lasting several days, produced a contrast in different dairies, equal to the extreme in temperature, which was found in many dairy rooms to exceed the common atmosphere from 8 to 10 degrees. With little or no ventilation in these, cheese were much swollen, and could be kept in shape only by using *less rennet and more salt*. The *huffed cheese* remaining in same rooms become tainted, or generated a sharp, unpleasant flavor; those removed to a temperature suited to their constitution cured quick, and were well adapted to early home markets. Those salted high enough to stand the excess of heat, were hard, dry, crumbly and smart. A dry room was found best for a wet cheese, and a damp room best for a dry cheese; but in no case was a high temperature, (exceeding 75°) found necessary.

These and like experiments, too numerous to detail, confirm my conviction that much of the bad flavor complained of in the American cheese, may be prevented with proper attention to curing. In addition to the extreme changes of weather in our climate, which are more than sufficient to destroy the constitution of a well manufactured cheese, the practice *too generally prevails*, of placing cheese in some loft or upper room, least needed for other uses, and often next to a roof where heat concentrates, and cheese becomes *literally baked*. I deem such rooms best as are calculated to

preserve an *equilibrium of low temperature*. A tight, spacious, studded and plastered lower room, well ventilated, with northern exposure, where heat may be increased, and air dried by fire and ventilation, or cooled and dampened if required, by air from an underground or adjoining room, where ice may be kept, is *best adapted to this climate*.

Having previously written at considerable length upon *general treatment, adaptation of food*, I shall not here go into a lengthy detail, but a few hints may not be inappropriate. The success of dairy-men depends much upon adapting their practice to the provisions of nature. Cows should be in a condition to yield the greatest flow of milk, upon the cheapest and most spontaneous productions from the earth. Maize, mangewurtzel, cabbage, carrots, and ruta bagas (of the cultivated crops) yield the largest product per acre, and from the various periods at which they arrive at maturity, are well calculated to protract the flowing of milk till late in the season. Those most perishable to be used first. It is proved by experiments that a cow will give the most milk from the same amount of food, during the first sixty days after having calved. My cows yielded 45 lbs. milk per day the first of March, on 25 lbs. of good hay and 4 quarts of provender in slops. The first of June they diminished in quantity, and the first of November on same feed, they gave only 20 lbs per day. Other cows of equal quality coming in from the middle of April to the first of May, gave, on the first of June, 55 lbs. of milk on grass only, and held a good flow of milk through the season. On the first of December they gave 20 lbs. of milk each, while those in milk the first of March were nearly dry, upon the same feed, proving conclusively, that cows in general, will yield more and better milk from the first of May to January, than from first of March to January. The months of March and April require much more labor and grain feed, that would otherwise turn to money. Nature provides in *spring time*, a principle of *general progressiveness* in the animal and vegetable kingdom. The thriftiest growth of spontaneous products is in May and June, and cows should then be in a condition to receive its aid.

If seed of a spring crop is sown too early, the crop will be stinted; so with cows that calve in February and March. Nature having made its master effort in the animal economy, it cannot be revived again in spring-time of vegetation, and in the fall, when farmers have more or less of coarse perishable food, like pumpkins, apples, etc., they are not in as good condition to yield milk, as when they are started late, and their milk is kept up by sowed corn, or other succulent food.

I realized the greatest nett product of cheese in my dairy in 1844 and 1845. Commencing April 20th with half my cows in milk, average yield in 1844, 700 lbs. per cow, market weight. In 1845, average yield 775 lbs. per cow, weighed daily from the press, averaging five lbs. per cow per day during the first five months.

No one kind of grass or other food is found to produce as much or as good milk, as good pasturage upon soil yielding a great variety of grasses, each maturing at different periods, and furnishing in their turn the *flower of feed*, from which the finest flavor of butter and cheese is derived. Such soils are prevalent in this county, where the land is elevated and not over worn with tillage. Low, marshy grounds, and those having a northern or northwestern descent are exceptions.

A difference of from five to ten per cent is frequently shown by the lactometer in the quality of milk from neighboring dairies, the proof being in favor of those *best fed and cared for*. The practice is prevalent among dairymen of pasturing the low, wet and shady portions of their farms, (if they have such,) and using for meadows the more aired portions. In some loca-

tions, it is impossible to make a fine flavored cheese. The curd works tough and stubborn, and cheese is invariably of a harsh rank flavor. If this practice should be reversed, and the low lands used for meadows, and the elevated, warmer portions grazed, no doubt a great improvement would be made in our dairy products.

More care is required in working curd where whey and grain is fed, than when cows are grazed, as the milk is richer, and the cheese more apt to be harsh-

flavored; when cows are in heat, their milk should not be put with the rest, till thoroughly cooled. It is often rank and bitter, and will sour in a few hours. If cows eat salt largely, beware of soft leaky cheese; it retards the effect of rennet to decompose. Salt should lay by the cows that they may take a little daily. Corn sowed in drills will produce more milk, arising from cultivation and the effect of sun and air. If fed when too old, it is not succulent, and will dry up the milk.

WASHING AND SHEARING SHEEP.

These operations are frequently performed at an earlier day than is proper in this latitude. Cold storms and frosty nights are not unfrequent with us till June, and before the middle of this month, we think it is unsafe to deprive sheep of their winter covering. The exposure and suffering which they are often obliged to endure after being shorn, is very injurious, sometimes producing deep-seated and fatal diseases, and in other cases suddenly overpowering the system and causing immediate death. Even with all practicable precaution the animal experiences a great transition, which must be very trying to the constitution, under the influence of cold and moisture. In fact scarcely a season passes that we do not hear of numbers of newly shorn sheep perishing from severe weather.

The process of washing, when sheep are immersed in very cold water, is also prejudicial to their health, and is besides objectionable from the imperfect manner in which the work is done under such circumstances. Exposed to undue cold, the men are impatient to get through their disagreeable job, and they hurry along without sufficient regard to the cleanliness of the fleece. The wool too, is by no means so readily cleaned in cold water as in warm. It is best, therefore, to defer washing till the water is raised to at least a bearable temperature. A shallow stream of soft water, in which, by means of a dam, the requisite depth can be obtained, is preferable.

It is proper that the ground at the bottom and around the water where the sheep are washed, should be of such a nature as not to render the water impure, and that the sheep may pass out after being washed without any mud or dirt coming in contact with their fleeces. To secure these objects, the reservoir is sometimes paved, extending the stones above the edges of the water till they are made to join a clean firm sward. Sometimes a cistern or vat, for washing sheep, is constructed and placed at the foot of the dam, and the water conveyed into it from the reservoir. We have seen sheep very nicely washed on this plan.

It is useful to sprinkle water on the sheep after they are collected for washing, and let them stand for a few hours before they are washed. This dampening of the fleece causes the impurities to separate more readily on washing, and the wool will appear beautifully white and clean. Leaving the sheep out in a warm rain, and washing them soon after, generally cleanses the fleece well.

Fine-wooled, or Merino and Saxon sheep, require much more attention and labor to wash their fleeces perfectly clean, than the coarser-wooled English sheep. The long-wooled varieties, as the Leicester, Cotswold, &c., can be washed without much trouble, so clean that the wool will scarcely shrink in weight in the hands of the scourer—or in the process of preparation for the manufacturer—whereas ordinary merino wool loses from thirty to fifty per cent.

The sheep should be kept in a clean pasture after being washed, till they are sheared, which should be done as soon as they become entirely dry, and they will require from four days to a week for this purpose. The best shearers should be employed—such as will cut the wool sufficiently close to the body, without cutting the skin, and at the same time cut smoothly and evenly. Each fibre should be cut once, and but once. The short bits of wool which are sometimes clipped off by shearers are worthless, and the torture to which the sheep is sometimes subjected by cutting its skin, is not only cruel but really injurious.

When sheep have been shorn, it is best to allow them to remain for a few days where they can have the benefit of shade. Exposure to a hot sun, while the animals are comparatively naked, frequently blisters the skin; and besides occasioning the animal much pain, evidently injures the quality of the first growth of wool. It deranges the cutaneous secretions and renders the wool harsher and drier. If they are allowed shade, they will not expose themselves to the heat of the sun, as they graze only at night and early in the morning. Should a storm, or unusually cold weather occur, the flock should either have the shelter of woods, or be driven to their winter quarters at the farm-yard, till the temperature becomes more congenial.

In regard to securing the fleece, the following remarks of Mr. BLANCHARD, proprietor of the "Wool-Depot" at Kinderhook, are deserving attention.

"After shearing, the fleece should be removed to a table or clean smooth place on the floor, with the inner part down; then be gathered up into as compact a position as it occupied when on the sheep; the sides of the fleece should then be folded over, so as to meet upon the back of the fleece; the head and neck thrown back so as to make the fold upon the shoulder; next be folded or rolled from the butt of the fleece and continued until you reach the shoulder. The fleece should then be snugly tied with a small smooth twine, passing round two or at most three times. You thus have a compact fleece, easy to open, and the shoulder, which is the the finest part, upon the outside. Buyers always expect to see the best side out, and wool growers sometimes do themselves injustice by not thus exhibiting their fleeces. I do not believe that the manufacturers, as a whole, in this country, are yet prepared to pay a sufficient advance beyond the present prices, to justify the grower of wool to remove all the ribs, belly locks, and skirts from the fleece, as is done with the fine wools of Germany. I would therefore, at present, put inside of the fleece all the well-washed and clean wool shorn from the sheep—carefully excluding all such locks as are filthy, or below the residue of the fleece in condition."

The regular growth of wool, in order to produce a staple of uniform quality is of great importance. Mr. BLANCHARD, on the occasion of delivering the remarks we have above quoted, (one of the weekly agricultural

meetings held in this city last winter,) made some good observations on this point. He showed that the size of the fibre varied with the condition of the sheep; that while the animal was full fed, and was improving in condition, the fibre would be larger and stronger, and that when growing poor, the fibre would be smaller and weaker; so that in many instances, we have several qualities in the same fibre. He took a lock of wool, and by twisting it from one end to the other, demonstrated the correctness of his statement. The lock was composed of a certain number of fibres of equal length, but they formed a thread of nearly twice the size in some parts that it was in others. The wool had been taken from a sheep that was well fed in summer and poorly fed in winter. Mr. B. said he had frequently seen flocks that were well kept for a few months after shearing and then run down and kept poor till they were sheared again. The fibre at the lower end was weak and tender, and the fleece was greatly lessened in value. But "when the condition of the sheep is good, and they continue vigorous and healthy during the whole of the year, the fibre of the fleece will be free and uniform in quality, and the fleece heavier and more valuable than when they are alternately changing from a high to a low state of flesh."

If *fine* wool is the object, however, the sheep should not be too highly fed, as actual *fatness* induces the production of a gross fibre. The aim should be to keep the animal at *all times* in a natural and healthy condition.

NATURE AND USES OF YOLK.—It is well known that the manufacturer desires to purchase his wool as free as possible from any other substances. Whatever may be the effect of yolk on the growth or quality of the fleece, the buyer does not want to pay for anything but *wool*, and of course makes a deduction from the price equal to what he supposes to be the weight of extraneous matters.

It has formerly been the custom in some sections, to breed a description of sheep, the fleeces of which were loaded to an extraordinary degree with animal matter; but the objection of the manufacturer to purchase this substance, has lately caused many wool-growers to prefer sheep which secrete but little yolk, and we think there is now some liability of the *fashion* running into an extreme in this direction.

The circumstance of the manufacturer not wishing to purchase yolk, is no proof that it is not necessary and useful for the production of wool. Take, for example, two fleeces of wool of equal fineness and quality, one of which, while it was on the sheep's body had a plentiful supply of this natural oil, and the other was destitute of it; which of the samples would really be most valuable per pound? Which would make the strongest and most durable cloth? No one can doubt that the latter would be altogether preferable for the purposes of *wear*, though perhaps this important point might not always receive its due weight with the manufacturer. In some instances he may pay more regard to those qualities in wool which will enable him to give his goods a handsome "*finish*," and to make the most yards from a given number of pounds. But we presume it will not be denied that light, dry wools have less strength than those which, while growing, are better supplied with yolk. Mr. Youatt, in his treatise on sheep and wool, says:—"Where there is a deficiency of yolk, the fibre of the wool is dry, and harsh and weak; * * * where the natural [requisite] quantity of it is found, the wool is soft, and oily, and plentiful and strong." And again as to the uses of yolk, he says:—"It is not the inspissated perspiration of the animal; it is not composed of matter that has been accidentally picked up and that has lodged in the wool; but it is a peculiar secretion from the glands of

the skin, destined to be one of the agents in the nourishment of the wool, and at the same time, by its adhesiveness, to mat the wool and form a secure defence from the wet and cold." Luccock, also, (who is quoted by Youatt,) observes that the yolk is necessary to the good qualities of the fleece, and that without it the wool becomes thin and light; "with it the fleece is full, soft and rich; * * and the qualities and condition of the wool are most wonderfully improved. From these circumstances we conclude that yolk is not only necessary to the production of a valuable fleece, but is the very pabulum of wool." He observes that the manner in which yolk acts upon wool is not accurately known. "Some," he says, "have considered it the superabundance of that substance which forms the filament, and which, by some unknown process, while the pile is growing, is consolidated into a transparent mass; while others conclude, perhaps more reasonably, that it is a peculiar secretion which exudes through the skin, and by intermingling with the pile, renders it soft, pliable and healthy, affecting it much in the same way as oil does a thong of leather, when kept immersed in it till perfectly saturated."

These remarks show the importance of the yolk or natural oil, to the growth and value of wool. But the fleeces of some sheep contain a secretion which is quite different from the *true* yolk above spoken of. It is a yellow, waxy substance, adhering to the pile, often attaching the fibres together so that their separation is difficult, and forming also a great obstacle to the thorough washing and cleansing of the fleece. It is frequently called *gum*. As it is not readily separated from the fleece by the action of water, it often adds much to the weight, even after the sheep are thought to have been "well-washed." Unlike the proper kind of yolk, it does not increase the strength and elasticity of the wool, but on the contrary, in some instances, by glueing the fibres together makes them liable to break in working.

But there is another point in this connexion which must not be overlooked. The character of the sheep, as to constitutional hardness, &c., is in a great degree, indicated by the quality of the fleece. It is known to every observing wool-grower, that those fleeces which naturally contain the least yolk, are thin and light, and are produced by sheep of weak constitution. Such sheep require more delicate food, more shelter, and more care in all respects. On the other hand, those fleeces which are well supplied with yolk, are borne by hardy, strong-constituted sheep, which are able to bear exposure, and live and thrive on comparatively coarse fare. These characteristics render it an object of importance for the wool-grower to pay attention to the yolk in the fleece, both as affecting the quantity and value of wool, and the points on which the profits of sheep depend.

"Spare that Tree."

Following out the poetical sentiment above expressed, I would say to settlers on new lands, spare the beautiful trees. Select the site for your habitation, if the surface permits, on some gently-rising eminence, and if possible, in view of the "silver stream" or the "limpid lake," and with a park, you may have a lovely situation.

But how, says one, am I to eradicate the bushes and obtain a smooth, grassy lawn beneath the trees. Cut the bushes when the leaf is fully expanded, or during the season of their most vigorous growth. Pasture close with sheep, and you will be able to be rid of the under-growth in one or two seasons. Clear off the rubbish and sow grass seed, and you have done. I have a beautiful park of forty acres made in this way. R. WATKINS. *Napoleon, Mich. April, 1848.*

PLANK ROADS.

We are indebted to PHILLO WHITE, Esq., for a copy of a Report on Plank Roads, submitted by him to the Legislature of Wisconsin. This document furnishes a more full and complete exposition of the advantages of this description of roads, than we have before met with. The first question considered is, what kind of roads are best adapted to the present wants of the community? And though railroads are admitted to afford the greatest facilities under particular circumstances, yet it is concluded that there are many situations where a class of thoroughfares less costly, "and more practical for every day use," are called for.

The advantages of plank roads, over McAdam or stone roads, are, that the former can be made in all situations, without regard to the character of the soil; that they are less liable to be affected by frost, (which is sometimes very injurious to McAdam roads); and that they can be built and maintained at much less cost. It is calculated that horses will travel with wheel vehicles, one-fifth faster, and draw one-fifth more weight on a plank than on a stone road. "In fine," (says the report,) "plank roads are preferable to those of McAdamized stone in cheapness, in case of draught and in comfort to passengers; greater speed being attainable on them with less assistance to draught; and stage owners say that they are less fatiguing to horses than stone roads, at the same rate of speed."

Plank roads, it is said, were first made in Russia; and their first trial in America was in Canada, where they were made by Lord SYDENHAM, who from a long residence in Russia, had become well acquainted with them, and was thoroughly convinced of their utility. We are informed that the Canadians are now so well satisfied of the great advantage of these roads, "that they have gone more extensively into the use of them than any kingdom or republic on the globe." These roads are chiefly in Canada West—the aggregate length of the different lines already constructed, being between 400 and 500 miles. We are not aware of the entire number of miles of plank road actually finished in the State of New-York, but this report informs us that the various lines for the construction of which companies have been organised in this State, amount in the whole to a distance of 500 miles.

As to the *width of the track*, or the length of the plank used, the report states that it has been shown "most conclusively, that for a single track, eight feet is preferable to a greater width," and that where a double track is wanted, it is best to make them separately of that width. The planks are laid across the bed at right angles. In regard to the necessity of more than one track, the report quotes the remarks of Mr. GEDDES, in relation to the Salina road. Mr. G. observes "great speculative objection was made in the start to but one track; but we have now the entire community with us in deciding that, on all ordinary roads, one track is fully sufficient. The reason is this: the travel in wet weather is entirely on the plank, except the turning out of the light teams; but they seek the plank again as soon as they can get around the team met or overtaken, so that the turn-out track is not cut with any continuous lengthwise ruts, and perhaps the wheels of not one team in a hundred turn-outs will strike the exact curve of another; consequently, in our experience, our turn-out track being well graded, passing the water easily and rapidly from its surface, remains perfectly hard and smooth."

Sleepers or Stringers.—In one or two instances, roads have been made without sleepers—the plank be-

ing laid immediately on the graded earth. The planks have kept their places quite well; but it appears to be the conclusion that it is best to use sleepers or sills.

"The sills," (says the report) "should be well bedded in the earth, their top surface barely in sight, and the earth in which they are embedded should be broken and pulverized, so as to leave no stones or other hard substances to obstruct their settling evenly, and thus permitting the earth to sink down firmly on the earth as its main support. Two stringers only are used on the Salina road, 4 by 4 inches in size and none less than 13 feet in length; they should be so laid as to break joints, as in laying brick, or putting on siding that is, the ends of the stringers on one side should not be laid opposite the ends of those on the other side. About 6 feet 8 inches is the proper width between the two lines of stringers, for an 8 feet single track road, which will bring them under the wheels of most road vehicles, and thus give a continuous bearing on them. One set of sleepers of good timber and well bedded, will last as long as two or three plankings."

Grading.—It is directed that the road should be graded twenty-one feet wide, "measuring from the inside top-lines of the ditches on each side." Great care should be used that the road be kept dry by means of side ditches and cross culverts. They should be made fine, firm and smooth.

In regard to lengthwise grading, it is observed that short rises are sometimes made of one foot in ten, though they are generally from one foot in twenty to one foot in thirty. Mr. ALVORD's remarks on this subject are quoted. "It is easier to go over the same elevation on a plank road than on a common dirt one; for on plank there is no cutting into the substance passed over, nor encountering of stones by the wheels; and if, as it ought to be, the plank way is covered with a slight coating of earth, the only danger suggested, the slipping of the animal, is avoided. It would be a prettier sight for the eye, were we to grade our plank roads more level; but while their practical utility is not lessened in any perceptible degree by their unevenness, economy forbids the expense of levelling them for ornament."

The kind of timber used for planks is oak, hemlock or pine. Oak lasts as well as any wood, but is *slippery* in wet weather. The wear by abrasion is calculated at one-fourth of an inch in two years; "and as planking will not break through till one-and-a-half or two inches of the surface is worn away, it follows that the duration of the plank, [if of pine or other soft timber,] would be eight years." Oak would generally last, it is thought, fifty per cent longer.

The cost of plank roads is estimated at from \$1500 to \$2000 per mile.

Plank Roads preferred by Farmers.—The opinion is advanced in the report that "railroads can never be made to take the place of teams for the transportation of grain, &c., within one day's drive of a market, because the farmer can carry the cheapest for that distance."

"There are seasons when work is slack with almost every farmer; yet his teams are daily consuming as much food at such time as when fully employed. Availing himself of these seasons, he can haul his produce to market with a very few shillings' expense, in addition to what would have been incurred had his team remained idle in their stalls."

The inducements for farmers to take stock in plank roads, are summed up as follows:

"Now in view of these facts and suggestions, it must readily occur to every farmer, within a reasonable distance of the line of a plank road, that he can better afford to take stock in such a company than any other of our industrial classes, because he can more cheaply pay for his shares,—by *working them out* on the road. Every head of a family, with his teams, scrapers, shovels, and other implements which are al-

ways at hand in the cultivation, &c. of his farm, could during those leisure times which every one occasionally enjoys, work out from one to a dozen shares, according to his force and proximity to the road, without any serious diversion of his attention from his regular vocation, or perceptive detriment to his crops. In fine, to all classes of farmers, no scheme was ever devised that afforded so rich an assurance of immediate and positive benefits to *them*, as the construction of plank roads in the neighborhood of their farms."

OXEN FOR FARM TEAMS.

Out of New England, a difference of opinion exists relative to the comparative value of oxen and horses for the business of the farmer, the great majority of agriculturists, by their practice at least, declaring their preference for horses. I say *out of New England*, because there I think the great majority of farmers maintain the opinion that oxen are preferable to horses for all kinds of farm labor. New England farmers are better acquainted with the real value of oxen, than farmers less accustomed to use them, and their opinion is entitled to consideration. In a communication made by the Hon. Levi Lincoln, of Massachusetts, to the Agricultural Society of Pennsylvania, he says: "So decided is the preference for oxen (here,) that I do not believe a single farmer can be found in this agricultural county, who performs his labor by horses without oxen; while there are *hundreds*, I had almost said *thousands*, who make no other use of horses in husbandry, than to furrow for planting, and plow among their corn for hoeing." This question of the comparative value of horse and ox teams, becomes an important one to the farmer, when it is recollected that the expense of his team, is a chief item in his yearly expenses. If ox teams are really more economical for the farmer, then a wide spread error exists, since in this, and in most of the states, horses are generally used, while oxen are either entirely unused, or but partially employed.

A common, and perhaps the prominent objection urged against the use of oxen, is that *they are constitutionally slow of motion*, and not to be depended upon in the oftentimes hurrying operations of the farm. As oxen are usually handled, there is something in the objection; it is believed, however, the fault is not a constitutional one, but the effect of injudicious training.

The common method of *breaking steers*, tends to make their movements slow. They are usually put into the yoke when two or three years old, and fastened at once to an old yoke of cattle, rendered slothful by labor or habit,—where they are worked until "broken," and forced to accommodate their movements to the tardy motion of the team that controls them. After having been tamed, and rendered obedient in this way, they are usually put to labor quite too severe for their age and strength,—and soon become "broken" in spirit. It is not strange that under such treatment, oxen are sluggish in their movements. By judicious training, oxen, as well as horses, can be taught to travel in any gait desirable for farm-labor; and any one unacquainted with the effects of careful training, with reference to rapidity of movement, will be astonished to see the difference produced.

The Devon breed of cattle has ever been esteemed for its working qualities, being excelled in speed at the plow, or even upon the road, by but few horses; and in their native country, it is said they are not unfrequently *trotted*, with an empty wagon, at the rate of six miles per hour. From this valuable stock, many of

the working oxen of New England are believed to have sprung,—their color, form and action betraying their origin. Although the bulls of this breed are generally light, and the cows rather small, the oxen are large, furnishing all the size necessary and profitable for the yoke, and falling little, if any, behind their more pretending rivals, at the shambles.

Well directed experiments have demonstrated, that with proper treatment and training, the difference in speed between horses and oxen, in farm labor, is very little. Sir JOHN SINCLAIR, in his account of Systems of Husbandry in the improved districts of Scotland, when giving the experience of practical farmers on this subject, says that the ox teams upon the farms in Wooden and Mellendean, *when along with the horse plows, never lose a turn*. The issue of plowing matches throughout the country, has it is believed, established the fact that oxen can plow a given space of ground *as quick and as well* as horses. While oxen are more or less used in farming operations in the vicinity where I reside, custom has entirely driven them from employment in transporting goods upon the public roads. I suppose the alleged *slowness of motion* of the ox, has led to his disuse in this particular. In the early history of this county, when the roads hence to the Hudson river were new—passing through forests and surmounting many of the steepest hills, my father, in his business, employed heavy ox teams as well upon the roads, as in his farming and lumbering operations. I find, upon examination of his papers, that his ox-teams, heavily loaded going and returning, made their trips to Catskill, a distance of 66 miles, in *six days*, frequently in *five days*, or traveling *twenty-two miles per day*. Horse teams consume, *on an average*, the same length of time now,—traveling over roads for the most part carefully graded and well-worked—roads ten miles a day easier for a team, than those in use from 1800 to 1812. The heavy six-horse teams traveling upon the National road make but fifteen miles a day. Ex-Governor Hill, of New Hampshire, in a letter upon the use of oxen in the lumbering business of Maine, (as the same is quoted by Mr. Skinner,) says: "I have at this time cattle of my own raising, which have been taught to step quick, and having worked in the same team with horses, will, side by side, travel as fast, and plow as much in a day as the same number of horses. A pair of these oxen, will turn over with a plow that carries twelve inches, of the last year's corn or potato ground, or easy stubble land, from one and a-half to two acres in a day, working eight hours, four in the forenoon and four in the afternoon. Oxen well-fed with hay, and a portion of Indian corn or meal, will in the heat of summer stand it to work daily from eight to ten hours."

Another objection urged against the use of ox-teams, is *their inability to withstand the heat*. So far as my knowledge or experience goes, this

objection is not fairly made. It is a common practice with farmers, during the hurrying season of farm labor to grain their horse-teams, and take such other care of them, as tends best to strengthen their powers of endurance; while it is a like common practice, to feed *no grain to their oxen*,—tasking their utmost energies in field labor during the day, and then leaving them to seek in the pasture, between sunset and sunrise, a restoration of their exhausted powers. Such oxen are often found *tolling* in the forenoon, and are pointed to as illustration of the fact that oxen cannot endure heat! Smarting under the lash, irritated by the bawling of an inexperienced and cruel driver, with a hot sun over him, and a stomach filled with green fermenting food, the ox faints at his labor;—and very wise lookers-on, shake their heads and say, “he can’t stand the heat.” Sage conclusion, very! In India and China, in the West Indies, in South America, in Spain, every where under the tropics, oxen are used for draught, or as beasts of burden, and their powers of endurance are as great or greater than those of horses. J. S. SKINNER, Esq., on the authority of Commodore Jones, says, the cattle at Naples, employed in drawing timber for the government, constantly travel twenty to twenty-five miles per day, are as spirited and walk as quick as horses, and *appear not to suffer from heat more than a horse*. Mr. SKINNER also says, “the small, pale-red, old field ox about Salsbury, in Maryland, will travel twenty-five miles in a day, with heavy loads of lumber going, and returning empty, over the sandy roads of that region; while it may be affirmed, after particular inquiry, that the distance made by the heavy-bodied, grain-devouring Conestoga horses on the national road, between Cumberland and Wheeling, averages not over sixteen miles, six horses with loads of from six to eight thousand pounds.” A distinguished Virginia agriculturist says, “A gentleman of my acquaintance had a mixed team of horses, mules and oxen; in each season his horses failed first, the mules next, although both were fed upon grain and hay; and the oxen, fed exclusively on hay and grass, *finished the crop*.”

When farmers become convinced that oxen, so far as farm labor is concerned, *are no slower*, or very little slower than horses, and *are as capable of enduring heat*, it is believed their chief objections to ox teams will be answered. To go to mill and to meeting they may need a horse, and for job work about their farms a single horse and a strong wagon will be found convenient.

In this connection, the difference in expense between ox teams and horse teams cannot but suggest itself to the farmer. In the original purchase of a *reliable* team, for farm work, the expense may be set down as follows:

Two horses at \$85 00 each,	\$170 00	Yoke of oxen,.....	\$100 00
Harness for the same.....	26 00	Yoke and chain,....	8 00
Whistle-trees and neck yoke,	4 00	Ox cart,	35 00
Farm or lumber wagon,	70 00		
			\$143 00

\$270 00

Difference in favor of oxen, \$127.

Animals of the horse and ox kind can be purchased cheaper than my estimate, but teams of a *less* market price cannot be called *good* or *reliable* teams. The comparative expense of keeping horse and ox teams, and keeping them *well*, is as two to three; or in other words, it costs a farmer *one-third more* to keep a horse than an ox team. In this estimate I make no reference to the difference in amount of manure made by the oxen, they giving back to the farmer a far greater amount than the same number of horses. In the estimate of profit and loss, to the farmer, there is another view of this question, which commends itself strongly to consideration. His ox-teams, from the age of four to eight years, when constantly laboring in his service, are just as constantly increasing in value. Experience

having shown that well-fed oxen, when *steadily worked*, increase in weight, as fast as those lying unemployed; and when too old for service, with good pasture for a short time, are worth their original cost in the shambles. Oxen are also considered less liable than horses to diseases of a fatal character, or to those producing permanent infirmity. I need not speak of the *value*! of an old, worn-out horse, nor of the total loss which is incurred by the owner when his horse fractures a limb, or dies from disease. While oxen, when too old for the labors of the field, have still a value sufficient to replace them by a young and vigorous team; horses worn-out, or diseased, are *worse than nothing*!

Meredith, N. Y., March 31, 1848. S. A. LAW.

Domestic Economy, Recipes, &c.

Preserving Dried Fruits.

In the March number of the Cultivator a correspondent wishes information in regard to preserving apples and other dried fruits, through the summer season, so that they will not become wormy:

The most effectual method I know of, is, when the fruit is dried and ready for packing away, as you put it into the barrel or sack, sprinkle it with whiskey—say at the rate of a pint to a bushel. We have tried this method for a number of years, and never knew it to fail; but when we neglected it the fruit always became wormy.

We have kept cherries, raspberries and currants for two or three years, perfectly safe in this way: I suppose any kind of spirits would answer the purpose, as the worms appear to go in for *temperance*. A SUBSCRIBER.

Another correspondent, who dates at Greenwich, and signs “AN OLD HOUSEKEEPER,” writes—“I have kept them in perfect order for years, by putting them into a brick oven, after the bread has been baked, and letting them remain all night; afterwards putting them into linen bags which are hung up.”

Another correspondent, C. J. says—“Keep it from the flies. I have kept apples in dry barrels or boxes with a piece of burlaps drawn tight over and tacked. They would perhaps keep still more safely *headed up*, but I have never tried that, apprehending some danger of moulding. Small quantities may be tied up in a tight bag and hung up. The same preventive applies of course to cheese, hams, &c. Tie a ham up in a tight bag, hang it up by the string of the ham; so that the bag will hang loose. If cheese inclines to crack, paste on good sound wrapping paper, in the same manner you would paste paper on the walls of a room.”

Recipe for Preserving Tomatos.

In answer to the inquiry in the April number of the Cultivator, as to the best method of preserving the tomato, I subjoin the following receipt, which I have tried and found perfectly successful:

Prepare the Tomatoes as for cooking (without seasoning, &c.) boil them one hour, then put them in small stone jars, cork and boil the jars for 2 hours, take them out and seal them *air-tight*; when opened, season, &c. and cook for half an hour. A SUBSCRIBER IN So. CAROLINA.

RASPBERRY VINEGAR.—The recipe for this very agreeable and useful article in the last number of the Cultivator, (page 160,) is deficient in one respect, viz. that it does not give the direction “*that the vessel in which it is to be made must be china or glass, and that no glazed or metal vessel is to be used in making or keeping it.*” Mixed with water it is one of the most pleasant drinks of summer, and moreover is of singular efficacy in complaints of the chest—a spoonful or two in a tumbler of water. P. Perth Amboy, N. J.

CULTURE OF INDIAN CORN—FARMER'S CLUBS.

EDITORS CULTIVATOR—At a meeting of our Farmers' Club, on Wednesday evening last, our secretary being absent, I took his place for the evening; and the enclosed reports were put into my hands. I have to-day copied them, and I take the responsibility of placing them at your disposal for publication. I do it for the purpose of giving you a sample of the kinds of reports which are presented. They are not selected, but are the only ones left with the secretary on that evening. Our society is not large—not more than 20 or 25 members usually attending; but this is something for a quiet country village, with but few inhabitants.

The rule of our society is, to have two or three written reports on the subject for the evening discussion, which subject is given out at the preceding meeting. As yet we have not failed to have two or more at each meeting. After these preliminary reports, a familiar discussion of the subject ensues; and then the reports and discussion are referred to a standing committee, to bring in at the next meeting, a final report embodying the substance of the written reports and conversation. By having these preliminary reports, the subject is fully brought before the meeting, by the various suggestions (and sometimes conflicting ones) in them, and the result is, every one has something to say upon some one point or other.

The order of proceeding at our meeting, is this: after the reading of the minutes, the reading of the reports of the standing committee on the subject discussed at the previous meeting is the first business; then the preliminary reports on the subject for the evening's discussion; next, discussion in a familiar way; the subject for the next meeting is then given out by the chairman, and the writers named; then any miscellaneous business. The chairman sees that the members confine themselves to the question of the evening during its consideration, and then to other matters as they are presented, in order. All reports are put on file and preserved by the Secretary for reference. With this system the interest of our meetings has been well sustained, and the amount of information communicated has been a matter of surprise to us all. We have had no difficulty in drawing out the views of our practical men, and this is the secret of the success attending our efforts. I have been somewhat particular in stating our proceedings, as I have not seen any account of an organization like our own. The society was commenced with us as a matter of experiment, and as yet I think no one of its members is prepared to give it up, but evidently there is an increased interest manifested from one meeting to another. Should our example induce others to try the like experiment, my object in sending you this will have been accomplished.

Very respectfully yours, J. C. HASTINGS.

Report on the Culture of Indian Corn. Read before the "Clinton Farmer's Club," By GAUIS BUTLER farmer.

The aboriginal name of this species of grain clearly indicates its origin. As an article of food both for man and beast, but especially for the latter, it holds a pre-eminent rank. Perhaps the loss that would be sustained by an entire failure of this crop could not be exceeded by that of any other. The well known fact that it may be and often is perverted from its legitimate to a pernicious purpose, is no valid reason why it should not continue to be raised, and to the greatest practical amount per acre, not refusing to gather even one hundred and fifty bushels, if we happen to find it there.

With these preliminary observations, I proceed to offer a few remarks on the best method of cultivation.

And first, negatively. According to the ancient Mohawk Valley custom, in directing the wayfaring Yankee, pointing out the wrong ways and then the right one, I propose to name a few things with respect to this question, that ought not to be done.

Do not plant corn on a piece of wet ground; on such land, unless in extraordinary seasons a failure may be expected. If it may seem necessary to till such a piece of land occasionally, the location of which is such as hardly to admit of thorough draining, crop it with almost any thing but corn, which delights in a dry warm soil. Do not plant corn after oats if it can be avoided. Oats are an exhausting crop, and as land can hardly be made too rich for corn, it will be found difficult to raise it to that condition necessary to ensure a good yield. Again, in fields where the wire-worm has long had almost undisputed possession, it is not advisable to plant your corn, as they will very likely save you the trouble of harvesting. A stiff clay does not seem well adapted to this crop. It is liable to suffer greatly from drought on one hand and from excessive moisture on the other.

A deep gravelly or loamy soil is the most natural element for this grain. My course has usually been to plant after wheat, and generally, to say the least, have obtained fair crops, seldom putting in more than two acres a season, and sometimes but one, believing it far preferable to give the land that tillage which will return 60 to 80 bushels per acre, than to run over some two or three acres to obtain that amount. As a general practice early planting is best. The entire growing season is not ordinarily much too long to mature the crop. Still it is doubtless better to wait a little if necessary than to hurry in the seed without being fully prepared. If the land designed for corn is not plowed till spring, once thoroughly done will be sufficient. There is however little danger of harrowing too much. Though I have said land can hardly be made too rich for corn, yet I have several times seen injury result to it by an injudicious application of very coarse manure. I would not be confined to any particular mode of applying manure, but would first administer a pretty generous allowance broadcast, and afterwards of the finest and richest portions in the hill. In planting I would not stint the hill to the precise number of plants intended to stand. Perhaps the following rule may not be far from the truth—One for the worm, one for the crow, and four to grow. The field now being planted needs close attention; whether there be any virtue in scare-crows (so called) I am hardly able to say, though I generally go through the ceremony of erecting divers sorts of fixings for that purpose. The owner's foot for the time being I know to be efficacious; crows generally do their worst where the hills are superficially covered. As a preventive in some measure to their depredations and for security against drought, I recommend that corn be covered nearly or quite the depth of three inches.

The corn being fairly up, do not wait long for it to become large enough to hoe, get among it with the plow or cultivator, and it will soon reach the mark. The boy who had his head combed but once a month, wondered how any body could submit daily to the torment of such an operation. He did not reflect that the daily operation which he dreaded, saved all the pain. So to some extent is the business of hoeing. The common practice is to hoe but twice, and this has been my own, till within a few years. Supposing that to hoe three times would add about one-third to the labor of tilling. This I find to be a mistake; not only is the

crop benefited by this course, but I have yet to learn that it causes any additional labor. A neighbor who usually planted in rows but one way and hoed twice, was induced a year or two since to change his method of planting, to rows both ways, and to hoe three times; one of the hands informed me that a gain of several days was made by the change, the same field having been in corn the previous year. Hilling corn is generally, and I think justly disapproved by writers on agriculture, and yet I find it difficult to hoe in such a manner as to leave the ground entirely level.

The last hoeing should be completed before the tassels generally appear. The labor of suitably preparing this ground for this crop, is not a trifling affair; but taking into consideration, the ample returns it is wont to make for all reasonable outlays, and that a succeeding crop is also at the same time amply provided for, there is every reason for doing up the work faithfully.

The practice of some, is occasionally to intermingle other crops with this, as potatoes and beans. I have no experience in this matter; but incline to the opinion that as a general rule, one kind of grain at a time on a given piece of ground is better than more.

A few remarks about harvesting, will close this report. The usual method was, formerly, to top the stalks after the corn was generally glazed, and put them in small stooks between the rows, and when the crop was ripe, proceed to husk it on the hills, or in some cases, to pluck off the ears, carry them to the barn, and then get up a husking-bee, an evening frolic for the youngsters of the neighborhood. I am not quite certain that any better method has yet been discovered, so far as the value of the grain is concerned, than to suffer it to remain on the hills till fully ripe, though it has been asserted by good authority, I suppose, that corn gathered into stooks, will produce more *whiskey* than when harvested by the first method. *If this be a fact, who can doubt the importance of its universal adoption?*

The proper time either to top the stalks or to cut up the crop and put it in stooks, I conceive to be, a matter of no small consequence. We are often told to do it as soon as the kernel is glazed. This I am sure is a mistake. I have done both in several instances, too early, and yet the corn had been glazed for some time. The consequence was, quite a shrinking and looseness on the cob. The stalks may be worth more at that period as fodder, but a diminished value in the grain will be the consideration for it. With the above explanations, and in view of the whole subject, especially with reference to fodder, I have no hesitation in giving my preference to gather in stooks.

Diseases of Animals.

Diseases of Poultry.

The diseases of poultry have seldom received attention in this country, from persons qualified to treat them judiciously. The management of this interesting and useful description of farm stock, both in sickness and health, is usually entrusted to children, or persons who are incapacitated for other business. The consequence is a general ignorance of their peculiar natural habits, as well as their diseases. But within a few years men of intelligence have turned their attention to this subject. This has been the case, particularly, in England, where the natural history and diseases of poultry have been investigated in a scientific manner.

We have been greatly interested with the articles of two correspondents of the English Agricultural Gazette, the one using the signature of "D. S. E." and the other "D." The former has written more frequently

on the diseases of poultry, and the latter chiefly on their natural history and habits. In regard to diseases, we propose to give occasionally such abstracts of the remarks of the writer alluded to, as seem calculated to be useful to our readers.

FLUXES, SCOUR AND DIARRHŒA. The first symptoms of these maladies are an unusual looseness. "In the early stages," (says D. S. E.) "this is occasioned by a superabundant discharge of liquid from the kidneys. The first of these, scour, generally precedes the second, diarrhœa, which becoming habitual soon produces great emaciation, and gives rise to the third, fluxes. These last assume two forms, often attendant on roup, and are very fatal and difficult to cure. They are probably occasioned by a secretion of acid from the intestines. The first is characterised by the passing and adherence of a certain irritating calcareous matter, having a very pungent ammoniacal smell, very adhesive and acid, soon producing excoriation, which is succeeded by inflammation extending up into the intestines." In the second form of the disease, there is a constant flow of straw coloured fluid; and the last form is a blood flux.

The causes are believed to be exposure to cold and wet, improper diet, sour food, salted meats, the refuse of vegetables lying about the yard till they putrify, and corrupt the water sometimes standing on the surface of the ground from which the fowls drink; and lastly, a general neglect of the important requisite of cleanliness.

Cure. In the first stages of scours, the writer states that proper shelter, cleanliness and judicious change of diet, will often prove effectual, without medicine. If the disease progresses to the second stage, it is recommended to mix water from a blacksmith's forge with the water provided for fowls to drink; oxide of iron or iron rust, mixed in pellets of barley meal is mentioned as a powerful tonic and astringent. "Part of the yolk of an egg boiled hard, mixed with bruised hempseed, or boiled barley, diluted with wine, (gin is preferable,) is an old French remedy." Another remedy highly recommended, is water in which the rust of iron is infused with an equal portion of new milk.

In the third stage, fluxes, the writer states that he has found the following most effective: two parts castor oil with one part syrup of white poppies, combined. This, he states, acts quickly in checking the disorder. Two tea-spoonfuls is the quantity for a grown fowl. It is added, however, that this remedy when repeated will sometimes produce the contrary effect, when castor oil must be used alone as often as required.

For flux of blood, which is of very rare occurrence, alum, dissolved in the fowls' drinking troughs, is recommended to be used, and rice boiled in milk, with a little starch added.

CONSTIPATION is a disorder the reverse of the above. It is described as follows: "*Symptoms*—straining, very evident to the watchful poultry keeper; and when fatal is mostly owing to neglect or ignorance. *Causes*—deficiency of green diet; feeding too long on dry grain; want of a sufficiency of clean water, free access to which granivorous birds in particular require, owing to the peculiar construction of their intestines, as compared with quadrupeds. *Cure*—a moist laxative diet, boiled instead of dried grain. When the crop requires stimulating, as before stated, one or two teaspoonfuls of gin is preferable to cordial horse-ball, and castor oil to calomel, as often recommended; and soot and fresh butter rolled in barley-meal; chopped suet or fat in roasted potatoes, and also lard mixed, have been advised; and pollen and bran with lard. In very aggravated cases a little sweet oil as a clyster, has been said to be very effective. Rye flour or meal, to which is added a little honey, is a French remedy."

HORTICULTURAL DEPARTMENT.

CONDUCTED BY J. J. THOMAS.

HORTICULTURAL EXPERIMENTS.

I. Budding.

Peaches.—(a) Mr. J. J. THOMAS' advice, to cut down early in the spring, those trees that were not budded the first year, or whose buds fail, is vastly important. You thus get a good stock for budding.

(b) Budded peach trees in windy positions, *should always be braced*. The best mode is to set the brace, (a small stick eighteen inches long for seedlings of the first year,) very slanting, so as to push the tree towards the prevailing wind. Pass your bass around the tree, giving it two or three twists, before you tie to the brace. Thus you will have a kink between the trees and the brace which, with the slant of the stick, will perfectly save your tree from rubbing.

(c.) *Earthing budded peaches in autumn.*—I do this habitually, for the following reasons: It preserves the vitality of the bud in an open winter. It saves the important portion of the tree from mice. It saves the tree, in positions where heavy snow banks would be likely to settle, from being crushed and destroyed by the snow. In my sandy soil they never suffer; possibly they might in a heavy one. Remove the earth in the spring before the sap starts.

(d.) It may be useful to those who have failed to secure peach stones for planting, during the preceding autumn, to know that *the robber sprouts that always spring up about the roots of a budded tree after it is headed down, will grow*. They are not as thrifty however, as seedlings, certainly not for the first year, beyond which my experience does not extend.

(e.) *The removal of trees in the bud.*—First, in the fall. I removed 160 trees in the fall of 1846. They were two-year old roots, many of them very large, and were much mutilated in the removal. They were removed the first week in November, the roots being carefully trimmed. Exactly three-fourths of the buds, (and every root,) lived, some of them making six feet wood the next season.

Secondly, in the Spring.—April 23, 1847. Removed 137 trees, the buds having begun to swell. These trees were all poor roots like the preceding, and were besides, deprived of about one third of their roots, intentionally, (for reasons not necessary to be mentioned here.) Just two-thirds of them lived, and did well. Of those that died, a considerable number were dogged to death by the ants. Here it is well worth remarking that *one-third* of the trees which were set the sun side of a high fence, nearly every one grew, while the *two-thirds* that were set in the shaded side, exhibited almost all the deaths, whether outright, or from the attack of ants.

2. *Cherries.*—My budding on this tree has taken very rapidly, but no tree has caused me so much trouble in getting off the bass. The buds, after they were apparently fast and looked plump, have been very liable to loosen under the influence of wind and sun, and frequently crushed to death by subsequent rapid growth. My cherries had been stuck almost invariably to save them from breaking by the wind, just above the bud.

Some that broke thus in 1846, I sought to save by putting a slight layer of putty on the wounded top. But it did no good. This last year, (1847,) I applied Mr. J. J. THOMAS' mixture of tar and brick dust, apparently with entire success. Let it be put on with great care, so as not to cover the bud.

3. *Peaches on Plums.*—This has caused me more

vexation and discouragement than all other labors of the kind put together. Of more than one hundred buds set in 1845, not one now survives. Of the same number set in 1846, but two are alive. *Errors.*—1. Late setting. 2. Careless unbinding. 3. Stock not thrifty. 4. Taking off the buds above the peach so clean that there was nothing to keep the stock alive above the inserted bud. The consequence was that some of my peaches died after they were a foot long, by the drying down of the stock. In the case of peaches and quinces, it will do to take off every bud, but not so with the peach on the plum.

4. *Spring Budding.*—In 1847, June 2d, 3d and 4th, peaches on peaches, and peaches on plums; failed entirely.

b. A pear took on a mountain ash. It grew about four inches, and is now, (Feb. 18th,) alive.

c. Plums on plums. A few (of Bolmar's Washington) took. They are now alive.

Adieu, with all my heart, to spring budding. It will do in the south, but it has nothing to recommend it in Central New-York.

II. Mildew in Gooseberries.

a. I have about forty very old mossy bunches of gooseberries. They have been occasionally manured, and trimmed severely every year. Of the four years they have borne me fruit, two exhibited fine and two mildewed fruit. The two seasons of good fruit seemed to be in consequence of sifting on strong ashes, once when they were in bloom, and once soon after. It was done when the dew was on in the morning.

b. So I had very fine fruit in 1847, on a patch of about three hundred young bushes, under the same treatment. Whether the alkali acts *directly* on the animalculæ that occasions this disease, or *remotely* by giving vigor to the root, I pretend not to determine. The fact, however, is valuable.

III. The White Blackberry.

A correspondent of yours considers this a new thing among the fruits of this fruitful world. I can only say that it grew in my boyhood in Rensselaer county, and that I found it in 1842, in Chautauque county.

White, black and red, are the prevailing colors of the berries of most brambles, and of the external covering of most stone fruits. Meanwhile chemists tell us that iron is the universal pigment of nature, wherewith she beautifies her fruits and flowers. Will not some of our learned vegetable physiologists, who have leisure, taste and ability for such investigations, tell us if they can, whether these different colors in the same species of fruit as the blackberry and currant, are in consequence of the *different conditions* of the oxide of iron in the soil, or of its absence from the soil entirely; or whether it be not the result of the *peculiar powers* of the plant itself, by which it appropriates it to its own peculiar purposes, or rejects it altogether. We may presume, however, that it possesses the latter power, since the same flower often presents various hues, and the same well elaborated garden soil different flowers; while different colors of the same fruit grow side by side in the same soil.

IV. Hawthorns—in this hot climate.

I fully agree with Downing and other writers on the unfitness of the Hawthorn for hedges, in this dry and hot climate. I wish to notice an interesting fact, however, in regard to this thorn. I have a plat of ground of less than half an acre, surrounded by a hawthorn hedge

on two sides—the west and the north,—the hedge being untrimmed, and from 14 to 18 ft. high. That on the west side is thick, thrifty and verdant, while that on the north is every way inferior, with nothing in the soil or adjacent cultivation to make this difference. And yet, I think I have lately discovered the reason. The rain storms in this vicinity are, with scarcely an exception, from the east or west. The consequence is, that the hedge on the west side gathers a large amount of rain, that would fall beyond it were the hedge removed, while that on the north side receives merely as much rain as falls upon the surface of the soil at its roots. Hence the thrifty hedge is profusely watered and the other not.

V. Fall planting of Gooseberry cuttings.

In the autumn of 1834, I carried some gooseberry cuttings 120 miles in hot, dry weather. I planted them, without much care, in good gravelly soil, in my garden. This was about September 28th. In the spring of 1835, before vegetation, even in the gooseberry, could start, I had occasion to remove a few of these cuttings. In doing this, they presented white, thread-like rootlets, some of them six inches long, which must have been emitted the fall before. These cuttings made more wood during that season, three to one, than any that I ever set in the spring. The reason never occurred to me until lately. If I am wrong, will not some of your learned correspondents correct me.

I reason thus. The first impression of the declining heat of autumn was the more thoroughly to ripen the wood of the cutting at the top. Meanwhile the accumulated heat of summer lingered deep in the soil long after the air above became cool with the chills of autumn. Through the influence of this bottom heat, the process of granulation, at the bottom of the cutting went on, and the rootlets were emitted. In the spring, the plants started with considerable of the vigor of plants already rooted. On the other hand, cuttings set in the spring, feel the drying influence of the sun at the top, while the bottoms are immersed in cold earth, where the work of granulation and the emission of roots cannot go on. Those acquainted with the chemistry of heat, will readily perceive that the downward progress of heat in the spring is necessarily slow. Hence cuttings set at that season are in an unphilosophical condition, heat at the top and a chill at the bottom, when conditions exactly the reverse are needed for the speedy and certain growth of a cutting. Does not this experiment, and these principles apply to all cuttings; and have we not yet much to learn on this subject?

VI. Fruit trees in Clusters.

I have several plum trees growing in clusters of from three to seven stems each, growing from a common root. They are well trimmed up, and spread outward so as to form a round, open combined head. They have the advantage of being low, so that the fruit is readily gathered, while the tops are less exposed to the wind, both in blooms and in fruit. The trees in question are the Bleecker—(the Lombard plum of Downing,) and have been regularly derived from the original as sprouts. This form of tree has the single disadvantage of being less readily cultivated by the plow than straight single standards.

VII. Cherry Trees split by the Sun.

I have two cherry trees standing in a very hot position, which are badly split by the sun. Now I think that a board, a foot or more wide, and set in the ground close to the tree, with its top fastened to the tree by a single nail, would remedy this evil. This remedy, I think, would be better than straw bound round the tree which, besides presenting an unsightly object, affords a shelter for insects. In the case of very large trees,

standing in hot positions, two boards nailed together at the edges so as to form an angle might be used.

VIII. Mixture of Beets and Carrots in seeding.

In the spring of 1845, I planted 3 or 4 pecks of the ordinary turnep rooted beets, of good quality, for seed. Close to them and separated only by the space between the rows, I planted about as many yellow carrots, also for seed. They seeded well. I sowed this seed in the spring of 1846. Many of my carrots were red and many of my beets yellow. The seed was ruined. Now, although these two plants are of the same class and order in the Linnean system, and probably of very nearly the same vegetable principles, yet considering the difference of herbage and inflorescence, who would have suspected their mixing? Query.—If we assume that red was the original color of the beet, may we not suppose that its varieties of other colors, were originated by such crosses as this? E. C. G. *Utica, March, 15, 1848.*

“Insects injurious to the Grape-Vine.”

(Cultivator for 1848, page 151.)

By referring to the New-York Farmer for 1831, to the Genesee Farmer for 1832, page 133, and to Silliman's Journal for April, 1834, page 113, accounts of this troublesome visitor may be found. Nearly the whole colony on my vines, was extirpated by passing them between the thumb and finger; and by destroying the “minute worm or slug,” which I found to be the larva of the same insect. Under this treatment, requiring no great amount of labor, we had grapes in abundance.

On my first discovering this depredator, a young student in Entomology, gave it the PROVISIONAL NAME of *Chrysomela vitivora*, from its feeding on the vine, but it appears to be the *Haltica chalybea*, (steel colored) of Illiger,—*Haltica* having been separated from the former extensive genus. D. THOMAS. *Greatfield, 5 mo. 6, 1848.*

“Destruction of fruit buds by frost.”

(Cultivator for 1848, page 151.)

The blossom buds of the peach are so admirably formed—so dry, that like a grain of Indian corn, or a seed of the cucumber, they endure without injury any degree of cold to which this climate is subject. Their safety depends however, on their continuing dry,—for as soon as the sap flows in and swells them, they are liable to perish if the mercury in the thermometer, descends much below zero.

After the leaves drop in autumn, these buds become very sensitive in mild weather, either at that season or in winter. Sometimes indeed, though very rarely, the blossom opens in the fall—to perish of course. The danger appears to increase with the amount of development; and the same remarks apply to the fruit buds of the apricot.

Among the mountains of Pennsylvania, in a climate much more rigorous than ours, where the cold throughout the whole winter is steady, the peach tree is very productive; and some of our most severe seasons have been succeeded by plentiful crops of this fruit; but when the buds start in autumn, our hopes of plenty are founded entirely on the mildness of the weather that is to follow, for ten degrees below zero, have been sufficient to destroy them. D. T. 5 mo. 8, 1848.

Popular Errors.

EDIT. CULTIVATOR.—The article quoted in your last number, from the Gardener's Chronicle, stating that “Balsam seed 3 or 4 years old, saved from double varieties, is pretty sure to produce double flowers, whereas one year old seed is almost certain to produce single blossoms,” is sheer nonsense of the witchcraft class, and is

on a par with the stale English notions that very old cucumber and melon seeds will run less to vines and produce more abundant crops than new seed, and with the silly idea that by placing melon seeds in a pantaloon's pocket for some time previous to planting, that the warmth will improve their quality or accelerate the maturity of the crop. All these and the visionary tales about planting seeds, and rearing crops at certain stages of the moon, which some of our least favored ancestors brought over with them from Europe, have long since been exploded by intelligent American minds. They nevertheless exist in full force among the benighted and uneducated population of many countries of Europe. The "Seventeen years Locust" will doubtless in time prove to be one of the same category. It is discreditable to the mind of man to yield a blind credence to any statement as to a result or effect, unless a cause is assigned that will afford conclusive grounds for our mental conviction. Flushing, March 6, 1848. Wm. R. PRINCE.

Albany & Rensselaer Horticultural Society.

The annual meeting of this society was held in Albany on the 6th of May. The following gentlemen were elected officers for the ensuing year.

President.—JOEL RATHBONE, of Bethlehem.

Vice Presidents.—D. THOMAS VAIL, Troy; Dr. HERMAN WENDELL, Albany; EZRA P. PRENTICE, Bethlehem; V. P. DUOW, Greenbush.

Secretary.—B. P. JOHNSON, Albany.

Treasurer.—A. E. BROWN, Albany.

Managers.—AMOS BRIGGS, Schaghticoke; STEPHEN E. WARREN, Troy; J. M. LOVETT, Albany; WM. BUSWELL, Troy; J. MCD MCINTYRE, Albany; JAS. HENRY, Watervliet; WM. NEWCOMB, Pittstown; JAMES WILSON, Albany; A. OSBORN, Watervliet.

Exhibitions of fruits and flowers, will be held by this society as follows: At Albany, June 14th; at Troy, July 12th; at Albany, September —, annual show; at Albany, second Wednesday of February, 1847.

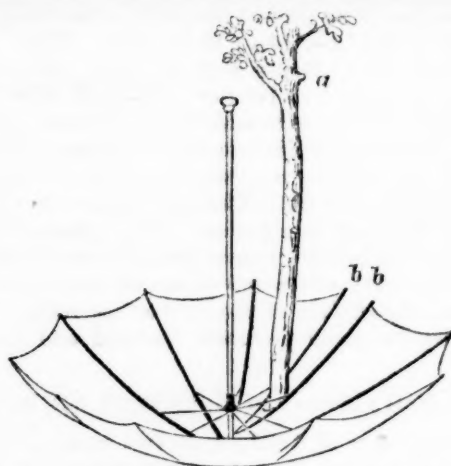
The Curculio.

As it has been fully decided by fruit growers that there is no "royal road" to the destruction of the curculio, it becomes very desirable that the common road should be made as smooth as possible. Under ordinary circumstances, fine crops of plums, apricots and nectarines, cannot be obtained without protection from this insect, and it often happens that other fruit suffers from its attacks.

After trying nearly all the numerous remedies which have been recommended, we have come to the conclusion that for general application, the best mode is a combination of two—first, destroy all that is possible by jarring them down on white muslin, and secondly, suffer pigs and geese to pick up and devour all the injured fruit which falls. Where pigs and geese cannot be admitted, a more diligent application of the jarring will be effectual, but otherwise, these animals will greatly lessen the labor.

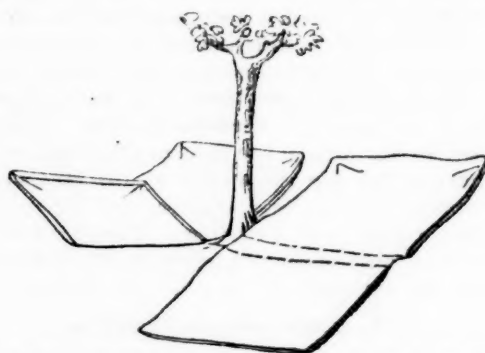
It has been urged, as a serious objection to the mode of jarring down on muslin, that the labor often amounts to more than the value of the fruit. Where this remedy is but imperfectly applied the time required for the extermination of the insect is prolonged, and the crop, besides, may be nearly destroyed. Hence a vigorous attack will be found altogether the most economical. To facilitate the work, we have adopted two different contrivances, both of which will be found essential advantages, and great improvements on the old mode of merely spreading white sheets under the trees. The

* In general seeds saved from double varieties will produce double flowers whether it be new or old.



Inverted umbrella for catching Curculios—Fig. 45

first, is a large umbrella, (Fig. 45), with a white covering, with an opening or slit between, to stiff arms, *b*, to receive the trunk of the tree. The arms, or expanding radii, should be nearly straight when the umbrella is spread, and not curved as is usually the case. If they are made of bamboo, an umbrella six feet in diameter, will not cost more than two dollars and may be procured to order at any factory. In using this implement, it is spread, placed in an inverted position and passed under the tree. The blow of a mallet is given on the short stub of a limb, *a*, which will jar all or nearly all the curculios from the branches; the umbrella is then partly folded and shaken at the same moment, by which all the insects are thrown through an opening a few inches in diameter at the centre, made for this purpose, into a pail of hot water already provided, or into a shallow vessel of oil of turpentine, and thus their destruction is as speedy as complete. A hundred trees may thus be cleared in a few minutes, and if attended to twice a day, will certainly save the crop.



Muslin on light frames, for catching Curculios—Fig. 46.

Where the trees are very large, or where an umbrella cannot be conveniently procured, square frames, made as light as possible and covered with white muslin, as represented by Fig. 46, will answer a good purpose, but will not be quite so convenient nor expeditious as the former mode. Each piece of muslin is attached to two square frames, so that it may be folded together, like a book. This folding will throw the insects together, and then lifting the frame and inclining it over a vessel of hot water or turpentine, they are easily jarred into it.

The advantage of a white surface is the operator sees at once where the insects are, and whether he is accomplishing his work.

Disease of Fruit Trees.

I see by your periodical, that the pear tree blight is attributed to frost. I had a pear tree in 1846, attacked by a species of blight, (whether the same you have at the north, I cannot say) but this was a species of fungus; the bark became covered with small brown spots,

from which proceeded what I call its roots, like cobwebs, which adhered closely to and completely covered the bark. Last summer, which was moist and warm, it spread to some apple trees, (in fact over the apples themselves)—plum and mimosa trees and rose bushes, and I have no doubt they will all die this summer, as the pear limbs attacked in 1846, all died in 1847, the bark cracking clean to the wood in young twigs.

If you know of any cure, you would confer an obligation on me, and I doubt not many others, by publishing it. I should observe that peach trees in the immediate vicinity, entirely escaped.

North Vicksburgh, Miss.

R. Y. ROGERS.

The blight described in the above communication, does not correspond to either the frost blight, or insect blight which are known here.

Budding once more.

See Vol. 4, p. 339.

Your correspondent R. T., is right as respects the mode of budding, but appears not to have quite discovered the best time to perform the operation.

In March, 1846, I received by mail from Rochester, N. Y., through the kindness of Messrs. ELLWANGER & BARRY, a slip of the "Northern Spy" apple, which when received was quite dry, and showed but a very little indication of life. I kept the scion in moist earth until the second week in April, when I put the buds, (10 of them,) on some young seedling trees, four of which grew freely, and made during that summer, about 10 feet of wood, averaging nearly three feet each tree. I used last spring a part of the buds of the growth of 1846, and have now, from that small beginning, about 50 trees of that noted variety of apple.

In August, 1846, I budded several cherry trees, which proved almost an entire failure; last April I re-budded 50 of the same trees, with buds taken from the scions of the Black Tartarian cherry, cut the previous February, 49 of them grew, some of which made the past season upwards of three feet of well ripened wood. I advise R. T. to try again as soon as the bark separates freely from the wood next spring, using buds cut from scions next month, and whether he succeeds or fails, communicate the result "for the Cultivator."

I know not how it may prove in New-England, but am satisfied that in Illinois, the months of April and May are the best for budding.

For the benefit of some of your western subscribers who have abandoned the cultivation of the Quince, under the impression that our soil or climate is not congenial to its growth, I remark that the quince may be inoculated on either of the varieties of our native thorn, and the bud takes freely. I have raised the large orange quince on the thorn the second year after the insertion of the bud, which was taken from a quince tree that had never shown any signs of fruit, although upwards of fourteen years old. The quince on thorn stocks produces fruit every year, while those on their natural roots do not bear any. Several quince-bearing thorn bushes may be seen in Mr. SLACK's garden, at Lewistown. J. D. Fulton County, Ill., Jan. 1848.

Strawberry Runners

These should be treated as weeds, and kept hoed from among the regular crops of strawberry plants. They have precisely the same effect upon the crop as the same quantity of weeds, and cannot fail to lessen the amount, as well as to diminish the quality. A writer in the Gardeners' Chronicle remarks, "So convinced am I of the propriety of cultivating this fruit in separate and distinct plants, and of cutting off the runners, that I have this season taken out a plant between each of my plantations, thus making the distance between each plant four feet by three."

Productive Apple-Tree.

Browne, in his trees of America, says there is an apple-tree at Romney in Virginia, which, according to Dr. Mease, grew spontaneously from seed, is estimated to be fifty years old, and has obtained a height of 45 feet, with a trunk more than a yard in diameter. In 1835 it produced 180 bushels of large fruit, besides four or five bushels left under the tree as damaged, and several bushels taken by visitors during the course of the season—so that the whole amount, in the opinion of Dr. Mease, must have been nearly 200 bushels.

The greatest quantity of fruit borne on a single tree in England, in one year, grew in Littlefield, Sussex, and produced 74 bushels of fruit—the total weight of the crop being nearly two tons.

Repeated instances have occurred in Western New-York, of trees of the Rhode-Island greening, with little or no cultivation, yielding single crops of more than forty bushels.

Bassano Beet

We observe that A. J. Downing, in a late number of his Magazine, describes this fine early beet as "oval" or "long turnip-rooted." We have cultivated it for several years, the seeds being obtained from different sources, and with us it has had invariably a flat root, like that of the flattest turnips, the horizontal diameter being usually twice the distance from the crown to the tap root. It has proved very early, sweet and delicate, and always remarkably productive,—where thickly planted, the roots literally touched each other, without a diminutive growth. Which is the genuine variety?

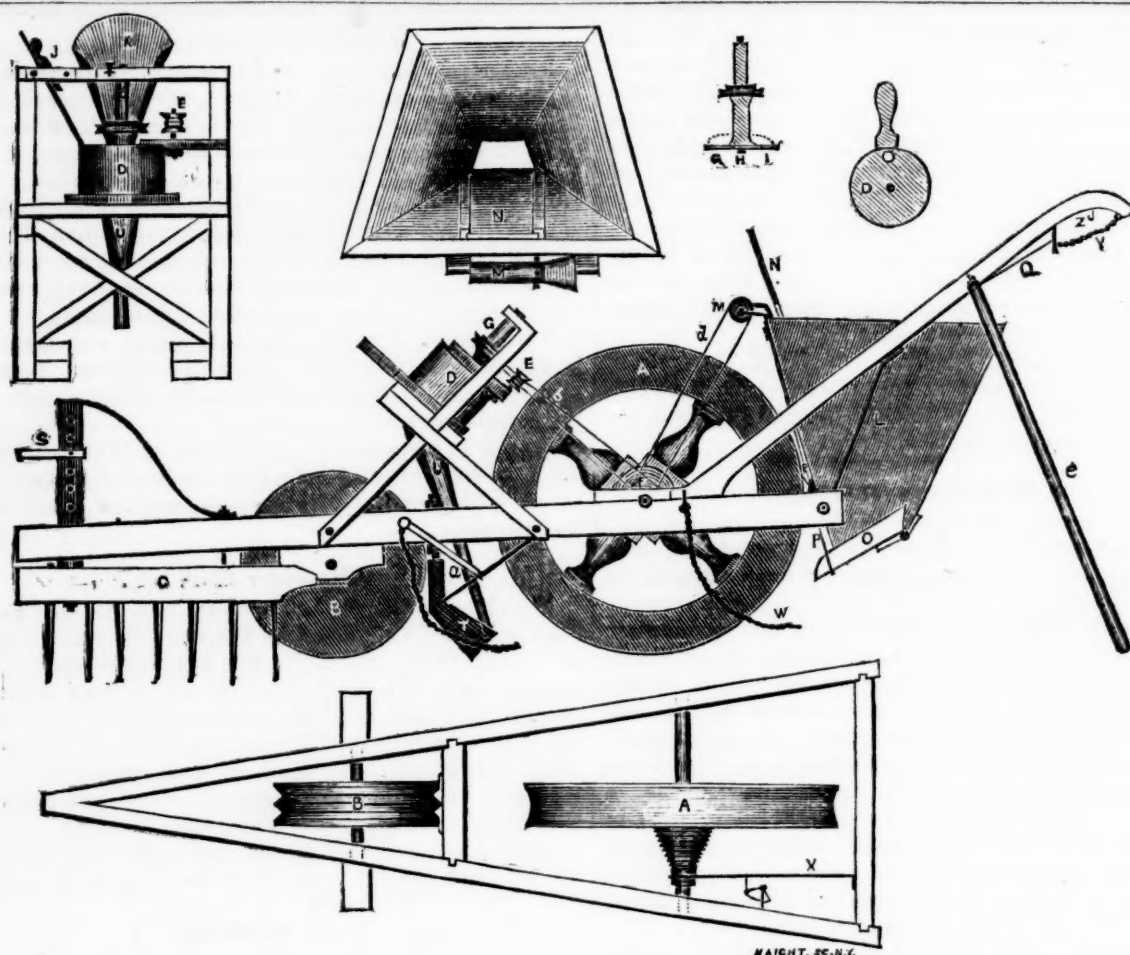
Fruit Stealing.

Some of our readers will doubtless remember the remedy published some time since against fruit stealing. James Matthews, Esq. of Coshocton, Ohio, thus speaks of this remedy in a letter to the Ohio Cultivator:—"We have found the article published in your last number, the best remedy yet known here for fruit-stealers and garden robbers. The tartar emetic works finely! A good dose will lay a fellow out limber for a while, as the sad experience of some here amply proves. It also clears out the stomach, prevents chills and fever, and creates a distaste which very much diminishes thieving propensities."

"An' sure, and ye don't call it stealing, to get over and take a little fruit, do ye? Yes, we do, (says he of the Maine Farmer,) and the meanest kind of stealing, too. You wouldn't walk into that man's house and take his money from his drawer, nor his bread from his table; and yet very likely that bread and that money have not cost their owner half so much care, half so much labor, and are not half so much prized and valued as his fruit."

THE CURCULIO REPELLED.—A. J. DOWNING, in the Horticulturist, states that on two nectarine trees, (a fruit eminently liable to destruction by this insect,) standing near a stable yard, not a single puncture could be discovered, while others a few rods distant did not escape. This effect was attributable to the offensive fumes of the manure repelling the insect. The same journal contains a communication stating that the writer wishing to stimulate some old plum trees, left round them for a fortnight, uncovered, a heavy coating of fresh horse-manure, during the period of the swelling of the fruit. These trees bore fine crops; all others were stung, and dropt all their fruit.

LAMOILLE CO. AG. SOCIETY, Vt.—Fair at Hyde Park, Sept. 20th. Officers for the present year, ARIEL HUNTON, President; SAMUEL MERRIAM, NOAH ROBINSON, Vice-Presidents; L. H. NOYES, Treasurer; C. S. NOYES, of Hyde-Park, Secretary.



DESCRIPTION OF DRILL BARROW,

For planting Seeds, and applying Manures, such as Poudrette, Bone-dust, Ashes, Plaster, Marl, &c., at the same time.

A. Main Wheel, to propel the machinery and roll in the seed; made concave in order to press the earth to the sides of the seeds as well as upon the top of them. It leaves a slight convex ridge upon, and a little furrow on each side of the seed, so that rain may settle at the sides rather than immediately upon the seeds.

B. Regulating Wheel, to keep the Coulter at an uniform depth—made fluted to help pulverize the earth.

C. Harrow, to throw aside small obstructions, as also to fine the ground.

D. Seed Box, which may be drawn out for the purpose of emptying it.

E. Tightening Pulley, to accommodate the band to such groove on the gearing wheel F, and on the head of the elevator, as may be necessary to give the requisite speed to the elevator or dropper, secured by a thumb screw underneath. This screw must be loosened to shift the elevators.

F. Gearing Wheel, with grooves of different diameters, by which greater or less speed is given to the dropper; of course, putting in the seeds at greater or less distances apart.

G. H. I. Elevators or Droppers, of different sized holes, for corn, beets and turneps.

J. Clearer, of whalebone, secured by a wedge in the frame of the elevator, just so as to spring into each hole as it passes the guide tube U.

K. Leader, by which the seed box may be supplied without stopping the machine.

L. Manure Box, or Hopper.

M. Rack Wheel, connected by a band with gearing wheel F, and giving motion to shoe O, by connecting rod P; this may be raised or lowered by slides and thumb screws under it, on the hopper.

N. Slide Gauge, to regulate the quantity of manure to be delivered.

O. Shoe to hopper.

P. Connecting Rod, conveying motion to shoe O, from rack wheel M.

Q. Gearing Rod, which upon being drawn, by pressure of the left hand upon chain Y, throws the gearing free from main wheel A.

R. Pall, to prevent a reverse motion to the machinery; also serves to clean the surface of main wheel.

S. Clevis.

T. Coulter, which by nuts may be set deeper or more shallow, according to the desired depth for planting different seeds.

U. Guide Tube, conveying seeds to the furrows.

V. Chain for covering seeds, attached to knobs on the outside frame, so as to draw in a curved form after the coulter, and before the main wheel.

W. Chain covering the manure upon the same principle as V.

X. Spring, acting upon the gearing wheel to keep it in its place when liberated.

Y. Hand Chain, by which to move gearing wheel.

Z. Hook, to retain hand chain, and keep the machinery out of gear.

a. Leather Strap, to confine guide tube.

b. Band to elevator or dropper.

d. Band to manure dropper.

e. Legs, resting on hooks when the Barrow is moving, and extended when standing still, to keep it from falling on its side.

The prevailing practice in that part of New-Jersey to which I removed in 1833, was, to plant corn in hills about six feet apart each way, manuring only in the

hills. A few experiments convinced me that spreading a larger quantity of long manure and plowing it in was the better method; yet still I found it needful to add a little fine manure to each hill at the time of planting, in order to give the plant an early and vigorous start. This last process, however, was attended with considerable labor at a busy season, as I found it required full five days, man's work, to haul and distribute the manure, drop and cover an acre, if done properly.

I tried drilling corn in rows, but then to scatter the manure *nicely* in the drills, was a tedious business which I could with difficulty get common farm hands to do. Therefore, I set about contriving a *Manure Barrow* and Seed Dropper combined, and put in my principal crop with it in 1838, and continued to do so for the seven following seasons that I remained on that farm. My first attempts were not quite satisfactory, but I studied to obviate the difficulties as they occurred and to make improvements; the machine in its present state is the result thus far, and I shall be glad to see it further improved.

The accompanying drawing was made several years ago; since then the pulley M has been made larger, and a tightening pulley added to band d, both of which are improvements.

I have used only riddled manures in the machine, such as poudrette, lime, ashes, charcoal and bone dust. In my last planting of corn in 1845, I put eight bush-

els of bone dust, mixed with twice the quantity of charcoal dust to the acre, it being the first planting upon land recently underdrained. The yield was a good one.

With this machine and a steady going mule, a man has put in five acres per day; that is, plant, cover and manure it in drills. My practice was to plant twice as many kernels as I wished to stand, and where birds, moles and insects did not thin out sufficiently, it was done with a common hoe, cutting through the rows, leaving the strongest plants to average a distance of about eight inches apart. The drills being $4\frac{1}{2}$ to 5 feet apart.

Once plowing the corn only, and then as soon as the plants were fairly up, so as to be plainly seen in the rows, going as near as possible and turning the furrows from them, afterwards keeping the ground loose and clean by the cultivator and harrow, I found to be the better practice. I am satisfied that hilling up corn is useless, and destroying the root by the plow worse than useless, both for the corn and the stalks.

The kind of corn of all the various sorts that I tried which in that section produced the greatest yield, is rather a large growing stalk, producing ears of fourteen to twenty rows mostly, red cob, the kernel a reddish yellow, or flesh color, something of a gourd seed or horse tooth shape, and a little indented on the top.

ROBT. WHITE, JR

New-York, 4 mo., 1848.

THE FARMER'S NOTE BOOK.

The Norman Horse.

EDITORS OF CULTIVATOR—In the course of my remarks on breeding horses, recently published in the Cultivator, I have more than once intimated my intention to notice the Normans. This design would have been executed earlier had I been able to command my time. I have even now to regret that other calls press upon me so closely that I am compelled to give you but a hasty sketch.

The Norman horses now most used in France, are a cross of the old French or Norman draught horse with the Andalusian, or Spanish barb. The original breed was too clumsy and slow. The cross with the Andalusian has rendered them more shapely and active. I have examined the improved breed with a good deal of scrutiny. During my visit to France in 1846, I rode many hundred miles behind them, and saw many stables filled with them. The postmen and stage proprietors use them exclusively. I found them in daily service from four to twenty-four years old. Some had been driven fifteen or sixteen years. I found no lame or sickly horses in their stables—all appeared fat and hardy. They are driven before the mail coaches over routes of many hundred miles in extent, at the rate of eight miles per hour including stops; and I have many times seen one or more horses in a team trotting squarely and handsomely when the coach was moving at the rate of thirteen or fourteen miles per hour. They are of very uniform size and appearance—generally about fifteen hands or fifteen hands and an inch high, and weighing 1100 lbs.

The Norman horse lately purchased by Mr. Howland, of Union Springs, Cayuga County, is a very correct representative of the breed as it now appears in France. His sire "Diligence," is a better horse than any one I saw in France; and I have no doubt the stock of Mr. Howland's horse will prove a valuable acquisition to this section of the State. On good com-

mon mares of large size, he will get decidedly the best farm and draught horses that we can raise. I think the Norman horses and their crosses are better adapted to stage coaches and peddler's wagons also, and all places where quick and heavy draught is required, than any breed of horses of my acquaintance. I have no doubt that a pair of them, with a ton or more behind them, will perform a greater journey in a day or a week, than any other horses that can be produced.

Again, they are so hardy that there is but little trouble or risk in raising them. They mature so early too, that they may be sold at three and four years old for as much as they will bring when eight or nine. In short I consider them a very useful and valuable stock of horses. Respectfully, &c.,

J. B. B.

Syracuse, April 13, 1848.

P. S. In my last article on breeding horses, your compositor has made me say that I have never known a successful cross of a *Morgan* horse on a highly bred mare. I wrote, or intended to write, that I have never known a successful cross of a *Norman* horse on a highly bred mare.

Large Corn Crops in Indiana.

I noticed in the January number of the Cultivator, 1848, page 29, an inquiry respecting the method of raising large crops of corn in the west. In 1843 I plowed up a piece of grass-land which had been pastured two or three years. Before plowing I spread over one-third of the ground about ten cords of common barn-yard manure per acre; turned the sod as even as I could four inches deep. Planted Northern Yellow corn from Western New-York. Harrowed each way twice, and cut the weeds thrice—no hills made. Yield, 80 bushels per acre. Next season, 1844, spread on about seven cords of manure per acre on a little more than half the field, beginning on the same side as before, plowed once—laid off each way with a small plow—planted four feet apart each way, with *Baden*, and

other corn common to this latitude, thirty eight degrees forty minutes. Harrowed and hoed as above. Average crop, 133 1-3d bushels per acre. The manured part supposed to be one-sixth best. THURSTON WOOD.
Madison, Jefferson Co., Ia., March 10, 1848.

Wheat and Chess.



Chess plant—*Bromus secalinus*.

Our readers are aware that a difference of opinion exists on the subject of the supposed change of wheat to chess. The practice of many farmers is in a great degree guided by their opinions; and it is important to know whether he who diligently and perseveringly endeavors to eradicate every plant of chess from his fields, may reasonably hope for ultimate success; or whether careful or careless practice is to be alike rewarded with success or failure.

Without intending to offer any thing of a controversial character, we wish to call the attention of farmers to some points in the character and habits of the chess plant, which we believe will explain some results otherwise apparently unaccountable; and assist in reaching the truth much better than the statement of many superficial observations, of what may appear at first striking cases of transmutation.

One of the most interesting and important points of character in the chess plant, is the difference in size and luxuriance under different circumstances. Under the thick shade of vegetable growth, plants have been observed scarcely two inches high, perfecting their seed, and impregnating with the seed, wholly unnoticed, the land on which they grew. This has been noticed in meadows even two or three years after seeding down with grass. But when this obstruction to its growth is removed, the young roots will send up several shoots, to three or four feet in height, and in some cases yield an increase of two or three thousand fold. The accompanying figure represents plants of chess, growing from seed precisely alike, but under favorable and adverse circumstances afterwards. *a* is a plant growing in good soil, without interference or obstruction; *b*, a plant partially shaded; *c*, a plant of the smallest size, under a very dense growth of wheat, or in a meadow. These figures are drawn from actual observation, and the relative sizes are correctly given.

Another character is, the small size and hardness of the seeds of chess. Being much smaller than wheat, they often escape notice, and are sown and unconsciously spread; or escaping the teeth of cattle are distributed with their manure; or may be even spread by birds. The time they will remain in the ground, without vegetating, is unknown. But as pig-weed, fox-tail and other weeds, have been noticed to spring up in dense growth, on plowing meadows and pastures, which for a long series of years were thickly matted with turf; it is reasonable to suppose that the seeds of chess

also may remain many years in the soil, ready to spring up and grow, when "clean seed" is sown on new or supposed clean ground.

Hence it follows, in consequence of the preceding facts, that when wheat is good, and has a fine thick growth, the plants of chess are small and entirely escape notice; the scythe does not perhaps touch them, although they ripen and spread their seed. But when the wheat is thinned or destroyed by winter; or when cattle get in and eat off the crop, or when it is destroyed by any other means, the obstruction to the growth of the chess is removed, and young plants, instead of remaining as shown by *c* in the figure, of diminutive size, it shoots up and spreads its heads far and wide, and produces a conspicuous and abundant crop. The wheat has disappeared, and chess has taken its place; hence the conclusion is very natural that the former has changed to the latter.

But as every good farmer is careful to destroy pig-weed and fox-tail, and avoid spreading the seeds, the same care should be extended to the exclusion of chess. Instances are by no means wanting where such care, persevered in, has entirely eradicated the plant; and when wheat on such farms has been destroyed by winter, no chess has taken its place.

Agricultural products of the U. States and France.

A writer in the *English Agricultural Gazette* makes an interesting comparison of the products of the United States compared with those of France. The population of the United States is set down at 20,000,000 and that of France at 35,000,000. The proportion of the agricultural population in America is given as 80.4 per cent.; commercial, 2.5; and manufacturing 17.1. The writer observes that the agricultural production of the United States, compared with its inhabitants, is enormous, viz:—

	Horned cattle.	Sheep.	Horses & Mules	Pigs.
United States, 30 millions.	14,971,583	19,311,374	4,335,669	26,301,293
France, 35 millions.	9,936,538	32,151,430	3,192,337	4,940,721

He contrasts the grain crops of the two countries, showing the comparative amounts produced of each kind, in hectolitres, as follows:

	Wheat.	Barley.	Rye.	Oats.	In. Corn	B'ckwheat
United States, 30 millions.	1 1/2 ml's	6 ml's	44 ml's	135 mls.	2 1/2 ml's.	
France, 35 millions.	69 "	16 "	27 "	48 "	7 "	8 "

"The United States," (says the writer,) "produce annually 70,000 tons of wool, 600 tons of hops, 300 tons of beeswax, 10,000,000 tons of hay, 95,000 tons of hemp and flax, 100,000 tons of tobacco, 40,000 tons of rice, 395,000 tons of cotton, 60,000 lbs. of cocoons of silkworms, 77,000 tons of sugar, and 5,000 hectolitres of wine. The produce of the farm-yard, or cow-house, is estimated at 7,000,000l. sterling—(\$35,000,000); that of the orchards, 1,560,000l.; forests, 2,720,000l. The total amount of agricultural produce, amounts yearly to the enormous sum of 138,730,160l. sterling—(\$693,650,800.) The manufactures of the United States, though yet in their infancy, are rapidly increasing, and the writer puts down the amount of capital embarked in manufactories of various kinds, at 56,757,912l. sterling. Considered in all respects, therefore, he concludes—"America may be classed next to Great Britain, as the second agricultural and commercial country in the world."

Long and Short Eggs.

"D.", a correspondent of the *English Agricultural Gazette* shows that the old notion of "long eggs producing cocks," is unfounded. His first argument is, that "to every hen belongs an individual peculiarity in the size, form and color of the egg she lays, which never changes during her whole life-time, so long as she remains in health, and which is, as well known to those

who are in the habit of taking her produce, as the hand writing of their nearest acquaintance. Some hens lay smooth, cream-colored eggs, others rough, chalky granulated ones; there is the buff, the snow-white, the spherical, the oval, the pear-shaped, and the emphatically egg-shaped egg. * * * Now I assert that the hen who lays one round egg, will continue to lay all her eggs round; and the hen that lays one oblong, will lay all oblong. Consequently one hen would be the unceasing mother of cocks, another must remain the perpetual producer of pullets, which is absurd. * * * An old lady, whose fowls were all white, gave me a small globular egg, as round as a ball; it was added to a clutch of speckled Dorkings. The result was the due number of Dorkings, and one white cockerel. By the rule alluded to, it should of course, have been a pullet."

"Another supposed test is the position of the air-bag at the blunt end of the egg. We are told that 'if it be a little one side, it will produce a hen; if this vacuity be exactly in the centre, it will produce a cock.' But take a basket of eggs; examine them as directed, by holding them between your eye and a candle, and you will find very few indeed in which you can say the air-bubble is exactly concentric with the axis of the egg. A cock ought thus to be like Ovid's black swan, a rare bird. But in many broods, the cockerels bear a proportion of at least one-third; especially in those hatched during winter or in unfavorable seasons; the immediate cause being, doubtless, that the eggs producing the robust sex, possess a stronger vitality; the more remote cause being the same wise law of Providence, through which in the human race, more males are born into the world than females, to meet the wear and tear of labor and accident."

Farming on Long Island.

Perhaps you would like to hear something about this place—situated on the extreme east end of Long Island (North Branch.) Although generally considered as almost out of the world, and almost unknown, we think it is "one of the places," for farming operations, if nothing else. It probably contains between five and six thousand acres, and except a few hills and rocks on the Sound side, it is as level as a western prairie. The soil is excellent, and land is worth \$100 per acre. We are favored in having unusual facilities for fertilizing our soil. Great quantities, probably thousands of loads, of seaweed are annually collected, and add greatly to the products of the barn-yard and hog-pen. Between three and four millions of *moss-bonkers*, [fish,] also, are generally taken yearly in our harbor, the greater part of which are spread on our corn and potatoe fields, or buried in heaps to be spread on wheat and turneps. The farms here are small, averaging perhaps 30 or 40 acres, but I think you would be surprised to see the large quantities of produce sent off yearly. The principal are wheat, corn, potatoes and turneps.

I venture to say that there is not a village in the state, where there is a more equal distribution of property than here. There is scarcely one but what possesses a competency. We feel the want of nothing so much as timber, though some own woods in the adjoining country.

Our fencing stuff is brought from Connecticut and costs from 8 to 12 dollars a hundred—good three-rail fence costs 60 or 80 cents per rod, exclusive of labor. Every farmer has this tax on his income. Now can you tell us of something cheaper to fence our lands? I have thought of hedges, but the objections made are that they take up too much land, and that it is too much trouble to start them. I should like to see something more explicit in regard to their cultivation—to what

extent they impoverish the land—how long they must be protected from cattle, &c.? C. N. B. *Orient, L. I., April, 1848.*

Protection for Bees.

Bees in their undomesticated state, have sufficient protection against the frost of winter in the thick sides of the trees which they inhabit. A like protection was afforded by the straw hives formerly used; but the thin boards of which hives are now generally made, leave the bees so much exposed, that multitudes in almost every hive perish with cold, and not a few whole swarms. Burying them in the ground, and carrying them into cellars, have been practiced with good success; but these methods are inconvenient and not often adopted.

A method which I have for several years adopted, I have found very convenient and successful. My bee house is so broad as to admit two rows of hives, one fronting one way and the other the opposite. I place my hives eight or ten inches apart, and fill the spaces between and about them with straw, leaving the mouths of the hives unobstructed. I leave the straw about the hives late in the spring, till the old bees and the young brood will be secure from injury from late frosts. I have generally used pea straw lest mice should enter it and molest the bees; but I have used clean threshed wheat straw, and have never suffered any injury from it.

E. D. ANDREWS.

To Farmers.

Why is it, that the effort and enterprize of the commercial and mechanical part of our population is crowned with so much success, while, with a few exceptions, compared with the great mass, the efforts of our farmers but just enable them to live? Is it not for want of the proper direction of their energies to the object sought? We hear daily of merchant princes, of manufacturers who accumulate immense wealth, of bankers who control large amounts of our circulating medium, and these several classes, with our professional men, are those who govern the affairs and direct the legislation of our country.

Why is it, that sixty-five thousand professional, and one hundred and twenty thousand commercial men, and eight hundred thousand manufacturers and mechanics, making in the aggregate less than one million, exert so much more influence than the four millions of our agricultural population? And why are we told that the farmers constitute so small a proportion of our several legislatures, when their interests are so much greater than that of all other classes united?

The numerical and physical power in this country is largely in favor of agriculturists, and were their efforts properly directed, there is no reason why the influence they exercise should not be in proportion to this power. The number of farmers to be found in our legislatures at the present time may possibly be greater than formerly. Yet it is to be feared, that they are not always the best men who could have been selected; but that in some instances they are those who by their ambition rather than their merits, have gained these places of distinction, and who, if we may form an opinion by the result of their legislation, are controlled by others, and in many cases, like some who fill our county and town offices, are men who seek after office, rather than those who are sought after. But my object is not to write a political lecture, but to inquire into the reason why so great disparity exists in the intellectual powers of the different classes of our population. Is it not for want of a system of education adapted to their various occupations. It may be said that the children of almost our entire population enjoy in our common schools equal

opportunities for education with each other. Is there not wanting, however, in all of them an appropriateness to some of these occupations, and more particularly to those who seek an agricultural employment? True, in our schools they are taught that "two and two make four:" and that seven per cent added to the principal once in ninety days accumulates rapidly. But is not this suited to the merchant and banker rather than the farmer? Does not this instruction give the commercial man a starting point, which lead him to make laws to promote his own interests, permitting him to purchase State Stocks paying six per cent, and on this basis giving him the privilege of issuing a representative of money upon which he may receive seven per cent once in ninety days on the same property, while the farmer, should he be so prospered as to accumulate a little money to loan, is prohibited by our laws from taking over seven per cent. Should not the farmer's boy be taught that where "one blade of grass now grows two may be made to grow," and should not he be instructed how and in what way this may be accomplished? Thus giving him a starting point, which would be as certain in its ultimate favorable results as in the case just supposed. When will our farmers awake to see the importance of so educating their children to the business of farming, that a farmer's son shall be as well informed in what relates to his occupation, as the commercial and professional man now is in what concerns his? Has not the time arrived when in all our common and higher schools of education and colleges, the science of agriculture should be taught so that they may enjoy equal opportunities for education, adapted to their employment, with the most favored class of our community, and that the education acquired in these schools should not be so exclusively confined to what concerns the professional man alone? Let this subject be constantly kept before the farmer through the agency of agricultural papers and other agricultural publications, and we may look with confidence to the time as not far distant when the farmer, with others, may receive the benefits of education, and legislation, of our common country, when his rights and privileges shall be equally protected, and when education shall make him intellectually strong as well as numerically and physically so.

ONEIDA.

Western Virginia.

Rev. CALVIN HAWLEY, formerly of Otsego county, N. Y., emigrated to Harrisville, Va., last season, and since his residence there, has written an article describing the country, which has been published in the *Freeman's Journal*, Cooperstown, N. Y. We give the following extracts: "It may be proper to remark that the part of the State denominated Western Virginia, lies between the mountains, or Blue Ridge, and the Ohio River, dividing the Commonwealth north and south, and embraces an extent of country some 400 or 500 miles in length, and varying from 300 to 350 miles in width, a large part of which is in a wild state, and little or none of it in what could be called a good state of cultivation. The face of the country is more rough and hilly than any other I ever saw. The hills are not as high as I have seen in other States, but there are more of them, and but little table land on the top. The ridges are very narrow in many places, only wide enough for a road, consequently as soon as you arrive at the summit of a hill you immediately commence descending the opposite side. But the hills are generally free from stone, and the soil rich and productive. The timber is as fine as can be found in any country, and of any quality that can be found in the United States. More of oak than any other kind. Pine, chestnut, hickory, locust, poplar or whitewood, sycamore, beech, maple, black walnut, &c. can be found in great abundance. The

trees grow very straight and high, with but few if any low branches. The whole country is well watered by springs and streams that never fail, and have current enough to keep them pure. Such a thing as a swamp or pond of stagnant water can scarcely be found in all the State; consequently there is no country, I believe, more healthy than this, where there are more aged people according to the number of inhabitants. It is common to see persons eighty and even ninety years old riding about on horseback ten or fifteen miles from home on business,—a thing but seldom seen in Otsego county."

"The soil from its appearance would not be considered very productive. It is of a sandy make, mixed with loam and clay, and in some places of a reddish cast; the bottom lands are generally of a darker quality and very productive. There is but little land, however, but what would abundantly reward the hand of culture. This region is well adapted to raising stock. I have never seen so large and healthy looking sheep anywhere as I have seen here, and they require but little if any feeding, still they do better with some attention in this respect. Cattle, horses and swine, do extremely well. All kinds of English grain that is raised at the North will grow here and produce more plentifully. Apples, pears, peaches, plums, cherries, quinces, grapes, melons of all kinds, and wild berries of nearly every specie, grow bountifully and with very little labor. The sweet potatoe grows to perfection.

Guano—Its effect compared with Ashes.

STEPHEN H. SMITH, states to a committee of the Rhode Island Society, for the Encouragement of Domestic Industry, that on one acre of sandy loam, which without manure would have produced twenty bushels of corn, he sowed broadcast, on the furrow, after deep plowing, 500 pounds of best guano, well pulverized, and mixed with four times its bulk of dry loam. After harrowing, it was planted with corn. The product was 50 bushels. In 1845, he seeded down half an acre of ground, a sandy loam, with eight quarts of millet, ten pounds of clover, one peck of herds grass and one peck of red-top seed. This lot was dressed with 350 pounds of guano, worth \$9, applied as above described. On an adjoining half acre he put the same kind of seeds and in like quantity. Instead of guano, he applied 64 bushels of unleached ashes, worth \$8. The crop of millet was perceptibly best where the guano was used, and about ten days earliest. The crop of grass in 1846 was one-fourth the largest where the ashes were used. In 1847 the clover had nearly disappeared where the guano was applied, but remained well stocked where the ashes were put. The first and second crops this year were decidedly in favor of the ashes.

"The Spirit of Agriculture."

Prof. E. P. BARROWS, of the Western Reserve (Ohio) College, in a lecture delivered before the Trumbull County Agricultural Society, speaks in the following eloquent language of the happy results which may follow from the present awakened attention to agriculture:

"We have," he observes, "cheering proofs that the spirit of agriculture is awake. Let this spirit be cultivated, for it has the primitive seal of Heaven upon it. It is the spirit of peace and plenty, and good order, and good morals. It adorns the earth with luxuriant meadows, and goodly orchards, and golden harvests, and pastures covered with flocks and herds. It clusters around itself all the auxiliary arts and occupations, commerce, and trades and manufactures—all nourish it and are nourished by it. It fills the farmer's granaries, and makes his fireside happy and cheerful. While oth-

ers beat their plough-shares into swords, and engage in the work of desolating the earth, destroying her inhabitants, and filling her with crime and misery, let us have wisdom enough to adhere to the employment of our primeval ancestor—a far nobler employment than that for which his degenerate sons exhibit such a melancholy fondness. In the vast field of agricultural investigation and improvement—a field but hitherto partially explored—let it be our ambition to win laurels not steeped in tears and blood, but gathered in peace and quietness, and bleating flocks, and lowing herds, and waving harvest-fields, and smiling, light-hearted, industrious citizens.”

Seedling Potatoes—Running out of Varieties, &c.

In the March number of the *Cultivator*, I noticed an article from Mr. H. A. PARSONS of Buffalo, on the necessity of change of seed, and running out of varieties. On referring back, I perceive that he has written much on the same subject. I do not intend to enter into a controversy with Mr. P., but will submit a few facts and a few practical hints to your readers.

Mr. Parsons says in his premises, that “an occasional instance of success or failure proves nothing.” So we all say. He refers to the opinion of Mr. Cooper, who thinks the deterioration of the potatoe is owing in a great measure to the use of *poor seed*; but Mr. P. does not believe that farmers are generally in the practice of using poor seed—that is, small potatoes. If Mr. P. will extend his observations to other parts of the State, I think he will learn that a very large portion of the seed committed to the earth would not make a very good appearance on the table—he would find the tubers generally small and of ill form. Farmers have, in many instances, sold all the good potatoes they could spare, after leaving a supply for their own table. I would ask Mr. Parsons, and every reader of the *Cultivator*, to inquire of their neighbors, to the number of twenty or more, and see how many are in the habit of selecting the fairest and best shaped potatoes for seed.

“Some varieties having ceased to produce balls,” does not frighten me, and is no sufficient cause of alarm. I have dug potatoes, more or less, for thirty years, and have always noticed that where a hill or plant had a profuse crop of balls, the tubers were lacking in size and quantity.

I believe in the principle that like produces like; and if this principle were adhered to, and the best always selected for propagation, we should hear but little about the “running out of varieties.”

Mr. Parsons says—“The present disease in the potato was generally first noticed in this country in 1843. Soon after that, (1845), the agricultural census of the State was taken, which showed that the average product of the potato crop was only 70 bushels per acre: not half what it was 25 years ago.” It is well known that in 1844 and 1845, the potato crop in this State was much injured by the rot—from one-fourth to nine-tenths of the crop was destroyed by this disease.

He concludes by saying—“I did not intend to make any remarks about the cause or remedy of the present wide-spread disease in the potato.” Yet he quotes largely from European authorities to prove that the diseases with which the potato has been attacked, were induced by the age of the varieties and their (supposed) consequent debility. And from his own observation he has drawn the same conclusion—both now and heretofore. He therefore draws conclusions without intending to make any “remarks” in regard to the disease.

In conclusion, I commend Mr. Smith’s zeal in the production of new varieties from seed. I say go on, and when varieties are produced which excel those we now have in yield and intrinsic value, let them be adopt-

ed; but let all be first *proved*, that we may only “hold fast those which are good.” E. HAMMOND.

Long and Short Manure.

The committee on Farm Management for the N. Y. State Agricultural Society, in their report for 1847, speak of the different modes adopted by the competitors for premiums on farms, and observe—“All the competitors, with the exception of Mr. Delafield, prefer to use manure in its long or unrotted state, while the latter prefers to use it after it is well rotted; a careful examination of the answers, however, reconciles these conflicting opinions. We think that both theory and practice most clearly indicate that a cord of long manure will produce a greater amount of vegetable growth than the same cord would do if allowed to rot, exposed to the action of the sun and rain; because, during the process, a very great proportion of the ammonia will evaporate, and a smaller proportion of the saline matters will be leached away; but this loss will be avoided by the covering of muck, earth and plaster by which the heaps of Mr. Delafield are protected, and which absorb and combine with these valuable adjuncts to fertility. By Mr. Delafield’s method, therefore, a greater amount of fertilizing matter is restored to the soil than existed in its unrotted state; but it also has the additional advantage of being presented to the growing crops in a form better fitted for assimilation.”

Hints for Preventing Consumption.

It is not intended to give a chapter on the cure of the dire disease, consumption, believing that a few words on its prevention will be more useful. To insure success, we must begin with the infant subject—the offspring of healthy ancestors. Protect it in infancy with soft flannels next the skin, and let it breathe only pure air. In youth teach it that good health is the greatest of earthly blessings; without it there can be no enjoyment of life, and with it there should be no complaint of its defects. Teach it, that good health like a good estate, may be squandered little by little until it is bankrupt. Teach it that temperance in *all things* is essential; that there can be no violation of the laws of nature with impunity. Teach it to sit and walk erect, that the chest may be fully expanded, to protect the chest with flannel next the person, and other warm loose woolen clothing, at least during that season of the year that easterly or northeasterly winds prevail. Do not suffer the clothing so tight on the chest or body as to interfere in the smallest degree with the free expansion of the lungs. To keep the feet dry with thick oiled leather, loosely applied. Exercise several hours every day in the open air. Choose virtuous and cheerful companions, with whom singing and laughter may be indulged in; and finally, take time to eat and masticate your food well.

The above remarks are hastily thrown together, they are the result of observation and experience, and touch some points that are essential to the preservation of health, and too often neglected in the popular education of youth, or the practice of manhood. A. B. Setzler’s *Store, Pa.*

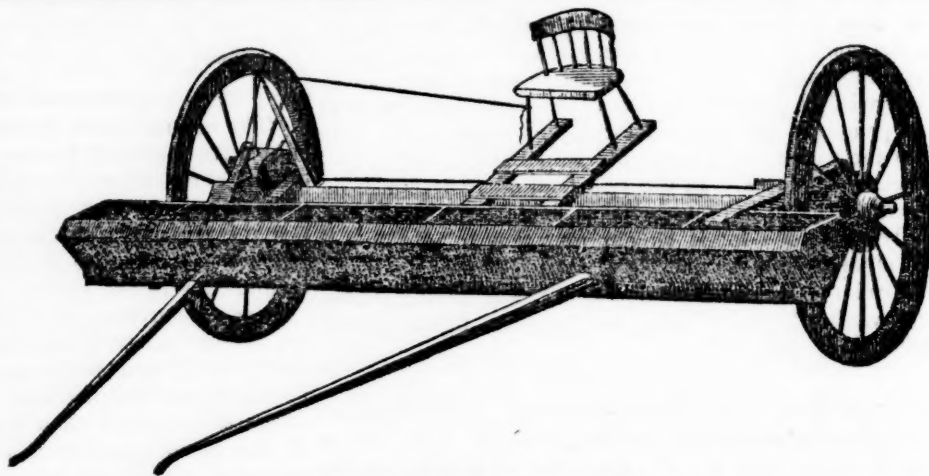
Fastening Shingles.

In one of your back volumes I noticed something in regard to the manner in which shingles are nailed on, in some parts of the country, (I forget where;) but I think the practice of our carpenters is preferable; which is only to nail them in the *waist* or near the middle, so that none of the nail heads, except on the bottom and top courses, are exposed to the sun. It was found that in the old practice of nailing in the butts, the action of the sun would in time loosen the nails and admit the rain. P. S. BUNTING. *Crosswicks, N. J., March 14, 1848.*

Seymour's Machine.

The annexed cut represents Seymour's sowing machine, advertised in our last. It has been pretty extensively used in Western New-York, and is much approved. We saw many acres of various kinds of grain on the farm of JOHN DELAFIELD, Esq., near Geneva, last season, which had been sown with this machine, and we never saw grain stand more evenly on the ground. Mr. D. assured us that he could sow anything,—lime, plaster, poudrette, guano, &c.

or any seeds, from grass seed to peas or Indian corn, with perfect exactness, graduating the quantity per acre to a pint. It is manufactured by P. SEYMOUR, East Bloomfield, Ontario county, N. Y.—Price \$45.



Seymour's Broadcast Sowing Machine.—Fig. 49.

Horses for "all work."

I notice articles in the Cultivator in reference to horses for all work. If farmers want horses of this kind, let them get the Cleveland bay, from Yorkshire, England. They are invariably of a bay color, with black legs, mane and tail. They are used for all work except the race course. They are from 15 to 16½ hands high, and weigh from 1000 to 1300 pounds each, with bone and sinew in proportion. They are easily kept in condition, inclining to be fat. They have good temper and good action as walkers, trotters, and slow gallopers. They are used in England for carriages, artillery, heavy carting, and even for hunting, with heavy weights. I think the most suitable horse farmers could breed would be Cleveland bays, 15½ hands high, weighing eleven hundred pounds.

J. H. REID.

Frederickton, New-Brunswick, March, 1848.

Experiment in sowing Wheat.

At the winter meeting of the Yates County Agricultural Society, January, 1828, the following account of an experiment tried by me for the purpose of ascertaining the proper quantity of seed wheat for one acre of land was read; for which the Society gave a premium, and voted unanimously to have it published in the Cultivator and Genesee Farmer :

On the 23d of September, 1846, I sowed four plats of ground with wheat, on a summer-fallow that had been plowed five times during the summer. The ground was prepared in the following manner : After the soil had been finely pulverized with a hoe and rake, I measure off accurately four sections each two feet square, leaving a small space between each of about six inches. The squares were then numbered and subdivided as follows : No. 1 in squares 1½ inches each way ; No. 2 in squares of 3 inches ; No. 3 in those of four inches ; and No. 4 in squares of 4 4-5 inches, including the outside lines of each large square. I then, with the thumb and finger, carefully planted one kernel of wheat in the corner of each small square.

The yield was as follows:

On the 19th of July last, I carefully gathered the four parcels, keeping each by itself—shelled each by hand and counted the grains of each section separately. The results of which are given in the following table: On the 17th of August, I had 4 ounces of the wheat carefully weighed by sealed scales ; and by counting all the grains weighed, I found there were 780 grains in one ounce ; from which I have made an estimate of

the different yields, and also the rate of the different amounts of seed per acre, for which see the following table :

No. 1	No. 2	No. 3	No. 4	
289	81	49	36	No. of grains planted.
203	60	40	30	No. of grain that grew.
256	136	112	104	No. of heads produced,
26	35	39	42	Av.no. of grs. per head.
7458	4765	4452	4399	Whole number of grains.
108	69	64	63	Yield per acre in bushels.
B. lb.	B. lb.	lb.	lbs.	Amount of seed per acre in
4 12	1 10	42½	31½	bushels and pounds.

It may be proper to add, that the soil was a clayey loam, which had never been manured and had been kept for pasture during the preceding six years. Should the ground be well prepared and sowed with a drill, it is probable, from the foregoing experiment, that the yield would be greater than if sowed broadcast.

Milo, Yates Co. N. Y. Jan. 1848. A. C.

Statistics of Lowell.

MESSRS EDITS.—From the statistics of Lowell collected in January last, we learn that the number of incorporated manufacturing establishments in the place at that time, was twelve. Capital invested in them \$12,110,000. Number of mills 47. Number of spindles 301,297. do. of looms, 8749; number of females employed, 8,635; do. males do., 3,995. Number of yards made per week, of cotton, 1,920,900; woolen, 21,291; carpeting, 6,500; rugs, 40. The number of pounds of cotton consumed per week is 637,000; do. of wool, 46,000; yards of printed goods 380,000; of dyed do., 1,235,000. Twenty-five thousand four hundred tons of anthracite coal are used per annum in these establishments, and of charcoal 36,303 bushels. They also consume 77,810 gallons of oil, and 35,000 of lard in the same time, together with 1,190,000 pounds of starch and 765 barrels of flour. Eleven of the establishments are warmed by steam, and one by steam and furnace. The average wages of females per week, clear of board, is two dollars; of males per day, clear of board, eighty cents.

The Middlesex Company makes use annually of 6,000,000 teasels, 1,716,000 lbs. of fine wool, 80,000 pounds of glue, \$60,000 worth of dye stuffs, and \$17,000 worth of soap.

There is a hospital for the benefit of the operatives, under the care of an able physician; two savings banks; three banks, to wit: The Lowell, with a capital of \$200,000; Railroad, capital \$600,000; Appleton, capital \$100,000; a mutual insurance company; a library of 7000 volumes belonging to the city, the benefits of which are open to all on the payment of fifty cents a year.

Other manufactures produced in the city, aside from

those above cited, and the machine shop turns out products to the value of \$1,000,000, employing capital to the amount of \$350,000, and about 1,200 hands.

The population of Lowell in 1820 was about 200; in 1846, 28,841; in 1848, estimated 35,000.

Preservation of Manure.

S. A. LAW, Esq., in his address before the Delaware county, (N. Y.) Agricultural Society, makes the following sensible remarks in regard to the preservation of manures.

"While the full value of manures is admitted, how few farmers have their yards so constructed as to prepare and reserve the greatest amount of fertilizing compost. Instead of barn and stable yards made lowest in the middle to retain those liquids which chemical analysis and actual experience have shown to be more valuable, and to contain in a more concentrated form, the elements of vegetation than solid manure, most farm yards are on sloping ground, as if constructed purposely for waste—and not unfrequently with a rivulet near by, to carry away all that may wash into it; instead of yards, in the fall of the year, filled with compost from the swamp, or from ditches, to be converted into manure, we see them empty, and usually provided with a ditch to carry off all moisture. Farmers who mean to be economical—who indulge in no unnecessary expense—and who would hesitate to spend a shilling for the gratification of a depraved appetite, by such practices as I have referred to, throw away dollars. Swamp mud, turf, leaves, weeds, and in fine, all the refuse of a farm, useless as manure in a natural state, when placed in the barn-yard or pig-sty, and thoroughly incorporated with materials there, becomes the best of manure, amply repaying the farmer for the time spent in collecting them."

Tan-bark for Manure.

I have been in the habit of supplying my hog-pen liberally with tan-bark, which enables the hogs to manufacture a large quantity of manure. The bark absorbs the liquid part, and is also a mechanical benefit in keeping the manure open and loose, as it naturally has a tendency to harden and bake; and if put into the corn-hill without sufficient care in planting, sometimes proves a positive injury. A day or two before using the manure, I incorporate with it ashes and plaster; and by putting this mixture into a hill, I raise corn with good success. E. R. Hartwick, Otsego Co., March 12, 1848.

Phosphate of Lime.

This substance constitutes the basis or earth of bones. In some of the dairy districts of Britain, where the land has long been grazed, it is said the phosphates have been exhausted in a great degree, and that the application of bones, or phosphate of lime, as a manure has been found very useful. Plants consume or take up this element in the shape of phosphoric acid. Wheat and other grains require this kind of food. Urine contains it in considerable proportion, and this is considered one cause of the great benefit of this substance as a manure for grain crops.

Phosphate of lime is not common. It has been found in Estremadura, in Spain, in large quantities, and has been carried to England at great expense and applied to the soil as a manure, but with what precise effects we have not learned.

We learn from Dr. EMMONS that two localities of phosphate of lime have been found in this State; one near Hoosick-Corners in Rensselaer county, and the other in Warren county. The proportion of phosphoric acid combined with the lime is said to be unusually

large in both instances; and the highly productive character of the soils of those localities, especially for wheat, is said to have first attracted attention.

Mr. J. C. NESBIT states in a late number of the *Mark Lane Express*, that being on a visit to a farm near Farnham, his attention was called to a kind of marl, which was said to produce remarkable fertility when applied to the soil. On analysing this marl with great care, he found it to contain from four to five per cent of bone earth.

The Salmon of Oregon.

Lient. HOWISON of the U. S. navy, in his report on Oregon, states that the Salmon enter the mouth of the Columbia in May, and make their way up the stream in immense shoals, for the distance of twelve hundred miles, being found in the month of September, at the very sources of the Columbia. The young fry pass out to sea in October, when they are nearly as large as herrings. Different families of salmon resort to different rivers, which empty into the Pacific on the north-west coast. The largest enter the Columbia, coming from the north. They average twenty pounds each, and some weigh forty pounds.

These fish constitute the chief subsistence of many thousand Indians, who reside in the country watered by the Columbia, and its tributaries; and besides affording an abundant supply to all those and the white settlers of Oregon, eight hundred barrels a year are exported.

Lient. H. remarks that strange as it may appear "none but Indians have ever taken a salmon from the waters of the Columbia; it seems to be conceded to them by an inherent right which no white man has yet encroached on." They are very superstitious respecting this fish. When they first appear they are permitted to pass on for several days unmolested, and for three weeks after their arrival nothing can induce an Indian to sell one. During the whole season, on catching a salmon, they immediately take out its heart and conceal it till they have an opportunity to burn it; their great fear being that this sacred portion may be eaten by dogs, which they shudder to think would prevent the fish from coming in the river any other year.

Potato Disease.

We have received a letter from Mr. J. F. SIMONDS, of West Poughkeepsie, N. Y., in which he gives some facts that have led him to the conclusion that a remedy for the potato disease is to be found in using *small potatoes for seed*. We will not venture to say what caused the exemption from rot in the cases he mentions; but if small seed potatoes were any security against the malady, the crops of this vicinity for the last two years ought certainly to have escaped. But the loss by rot has, probably, been as great here as in most sections, notwithstanding a very large proportion of very small potatoes has been used for seed.

But a theory still more novel than the above has been broached, viz., that the disease is attributable to the influence of a comet! A year ago, or more, we saw this conjecture put forth in a Massachusetts paper; and lately we noticed that the same idea has been advanced by a correspondent of the *Monthly Visitor*. The writer alluded to thinks "it is possible, and even probable, that the comet which appeared in the month of February, 1843, with such brightness and splendor as to be seen with the naked eye near the sun and about noon-day, imparted something to the earth directly or indirectly, which was deleterious to the potato plant."

But admitting the assumption that a poisonous principle was actually imparted to our atmosphere by the comet, it is certainly very singular that the potato

of all the productions of the earth, should have been made the special victim!

Of late, we have not thought it an object to occupy much time or space in reference to the potato disease; but having seen in the *Gardener's Chronicle*, an account of a very complete series of experiments tried last year in the garden of the London Horticultural Society, we are disposed to give our readers a brief abstract.

In the experiments alluded to, the soil and seed were treated in various ways, and the proportion of diseased tubers ascertained on digging the crop. The substances employed were lime, charcoal, salt, chloride of lime, potash, fat, sulphuric acid, coal-tar, chalk, sulphate of soda, nitrate of soda, sulphur, and sulphate of magnesia. In some cases these substances were mixed with the earth near the potatoes, and in other cases the sets or tubers were sprinkled with the substances before planting. The various articles were applied not only separately, but mixed in almost every way, and the rows thus treated, carefully compared with each other as to yield and condition, and also with parallel rows which received nothing. Full tables (for which we have not room) are given, showing the results in each particular case. No conclusion could be deduced from either of the trials, or from the whole taken together, in favor of the usefulness of any application or treatment. The *Chronicle* remarks, so capricious was the enemy in its attacks, "that a result obtained in one place was directly reversed by a result in another place only a yard or too off—there being no appreciable difference in soil or situation or circumstance. For example, the percentage of diseased potatoes found where nothing had been used in the soil, was as high as 32.50 and as low as 5.74. And although in the cases of some applications no disease whatever was found when the crop was taken up—nevertheless, in many instances the very same applications were found connected with above 50 per cent. of disease."

In connexion with the above, experiments were tried with seedling potatoes, and also with wild ones from South America. The seedlings were from seed obtained from various parts of Germany, from Poland, and from some districts of England. Some of the plants were started in hot-beds and afterwards transplanted to open ground, and others were grown entirely without protection. The tables show that all these suffered as badly as other varieties. The account says—"seedlings, concerning which so much obviously unfounded expectation was entertained, proved no more exempt from the disease than old and long cultivated varieties."

The wild potato fared no better. We are told—"A perfectly wild form of the root, fresh from its native mountains, exhibited the characteristic blotches in a worse degree than any other sort in the garden."

Farming on Thirty-seven Acres.

In our last volume, (page 180), we gave an article being the substance of a statement of J. G. CHADSEY to the officers of the Rhode Island Society for the Encouragement of Domestic Industry. From the report of the doings of the Society for the year 1847, we notice that Mr. CHADSEY's farming still continues profitable. He observes—"As my farm has been more productive the present than any former year, I will briefly state the net proceeds of my crops, so far as ascertained. My mode of cultivation has been the same as before communicated to the Society, and shall, therefore, omit particulars, in order to avoid a repetition of my last year's statement. I have cultivated about two acres more than last year, and increased my farm expenses very considerably, mostly for labor, which have been met with more than a corresponding increase of products. I have already (Dec., 1847) sold \$842.43

worth, and estimating the balance at the same rate, my crops the present year will amount to \$1410 60
Expenses, viz: for labor, board, manure,
farming utensils, &c. 564 69

For the use of my farm of 37 acres, \$845 91

Curing Corn.

I last year cut up a portion of my corn and cured it "Yankee fashion." I succeeded well, not losing an ear in a hundred bushels. The fodder was the best I have ever seen. It was cut part in September and part October. I am determined to save my corn fodder that way hereafter for many reasons: 1. The corn is as good if not better than by the old way of gathering. 2. The fodder is greatly superior. 3. The field is cleaned by the operation, and with the help of a cutting-box, the stalk is returned in manure, much more advantageously to the land. 4. Our way here, required walking over a field six times to gather fodder and corn, whilst this requires but three times. S. M. HYAMS. *Nachitoches, April, 1848.*

Answers to Inquiries.

"FAMILY BOLTER."—JETHRO, Reclusa, Georgia. Fitzgerald's mill has a portable bolter which may be attached to it, and will make the finest of flour from any kind of grain. The bolter may be had at the ALBANY AGRICULTURAL WAREHOUSE—price \$40.

"CABBAGES TURNING TO TURNIPS."—C. N. B., Orient, L. I. The cause of cabbages turning to turneps is, probably the mixture of the two species while in blossom. The whole of this tribe (*brassica*) will mix in this way, and they should on this account be kept at a distance from each other when put out for seed.

FISH MANURE FOR ONIONS.—C. N. B. We have never tried fish manure for this purpose, but should suppose a compost made with fish and well worked over, would answer well.

NITRATE OF SODA.—S. J. W. The South American article could be had in New York for about five cents per pound, by the quantity. Its value as manure as indicated by experiments, has been various. Its effects are generally more obvious in the growth of straw than in grain.

R. R., Fayetteville, N. C.—We sowed a part of the same lot of Osage Orange seed, and we should think nearly every seed vegetated. Yours may come up this spring.

STEEL CULTIVATOR TEETH.—T. B. Alabama. The price of Rogers' improved Cultivator teeth is 50 cents each, by the quantity, or 62½ cents single. They weigh three pounds each.

FATTENING SHEEP IN WINTER.—E. F., Forkston, Pa. The quantity of grain fed to sheep per head, daily, varies with the kind. Of Indian corn, from two gills to a pint, and in some cases a quart, are the quantities usually given. It is customary with the best feeders to give some potatoes and other vegetables in connection with the grain.

CHURNING BY WATER-POWER.—E. F. A discharge of five gallons of water per minute, with eight feet fall, would probably work an overshot wheel, by which the "milk and cream of a dozen cows" might be churned.

AMERICAN PIPPIN.—E. F. The apple described under this name by DOWNING, is not identical with the Newtown pippin, though he mentions that the latter is frequently called by this name abroad. The American pippin is called in some sections the *Grindstone*. It is chiefly valuable for late-keeping. It is of a dull red color, with star-like russet specks. Its form is roundish, somewhat flattened; keeps till June.

Notices of New Publications.

THE HORTICULTURIST AND JOURNAL OF RURAL ART AND RURAL TASTE. Edited by A. J. DOWNING, author of "Landscape Gardening," "Fruits and Fruit trees of America," and other works.

The third volume of this periodical will commence in July. Under the judicious supervision of Mr. DOWNING it has attained a character and reputation not inferior, we are safe in saying, to any similar work in existence. The second volume, which is completed with the No. for the present month, forms a beautiful and valuable book, embracing a great amount of practical information on the subjects of horticulture, pomology, landscape gardening, botany, rural architecture, entomology, and rural economy generally. Each volume contains twelve plates—one to each number—and there are besides more than one hundred other engravings of buildings, trees, plants, &c. The number of communications to the last volume is large, and they are from the most eminent and successful horticulturists in all sections of this country. We are gratified that it receives a substantial patronage, which ensures its continuance. It is published at this office, by the proprietor of the CULTIVATOR, terms, \$3 a year. Each number contains 48 pages—printed on fine paper, and executed in a style equal in every respect to the best periodicals of the country.

NEW EDITION OF WEBSTER'S DICTIONARY.—The new edition of this work lately issued by Messrs. G. & C. MERRIAM, of Springfield, Mass., is "got up" in beautiful style. It comprises in one quarto volume the entire dictionary of WEBSTER which had formerly been published in two volumes, and it is sold at the very low price of *six dollars*—a cheaper work in proportion to its value and style than we have known offered.

Of the value of this work as a dictionary of the English language, it is unnecessary for us to speak—it is acknowledged to be unequalled, and is the only work which should be used as a standard in this country. The present edition has been executed under the supervision of Professor CHAUNCEY A. GOODRICH, of Yale College.

THE FARMERS' LIBRARY AND MONTHLY JOURNAL OF AGRICULTURE. This publication is now nearly at the close of the third volume. The May number completes the republication of the "Book of the Farm," a standard and elaborate Scotch work. The department devoted to a "Monthly Journal of Agriculture," opens for May with a fine portrait on steel, of MARSHALL P. WILDER, Esq., President of the Massachusetts Horticultural Society, one of the most zealous and spirited Horticulturists in the country. The plate is accompanied by a well-written memoir of Col. WILDER, by the editor of the "Library."

This work continues to be under the supervision of J. S. SKINNER, Esq., one of the fathers of agricultural literature in America. It is published by Messrs. GREELY and McELRATH, who have evinced much enterprise and liberality in its neat execution, and numerous illustrations. Terms, *Five Dollars* a year.

SILLIMAN'S JOURNAL OF SCIENCE AND ARTS.—The number for May contains its customary variety of useful articles, among which we notice a Review of the Annual Report on the U. S. Coast Survey, an article on the Theories of Electrical Phenomena, with various valuable matters under the head of Scientific Intelligence. Edited by Messrs. SILLIMAN and DANA; published at New-Haven, on the first of every second month—\$5 a year.

EWBANK'S HYDRAULICS AND MECHANICS.—Part VII of this work, describes the first steam engines, which ends the fourth book of the series. Book V opens with "novel devices for raising water, with an account of

siphons, cocks, valves, &c. &c." The subject of raising water by machinery is lately attracting much attention, and those interested in the matter would do well to purchase this interesting work. Republished by GREELY and McELRATH, New-York, in numbers, 25 cents.

New-York State Ag. Society.

The Executive Committee met at the Society's room, Albany, May 1, and 12. The several committees for awarding premiums at the next fair, were appointed. The names will be announced in due season.


THE TIME OF HOLDING THE FAIR was fixed for the 5th, 6th and 7th of September next, instead of the 12th, 13th and 14th of that month, as had been previously appointed.

VISIT OF PROF. JOHNSTON TO THE UNITED STATES.—It having been suggested that Prof. JAS. F. W. JOHNSTON, of Edinburgh, might be induced to visit this country, the secretary was authorized to open a correspondence with other societies in relation to engaging the Professor to lecture on Chemistry and other sciences connected with Agriculture, and an appropriation was made on the part of the Society towards defraying the expenses. It is to be hoped that other societies will come into this measure, and that sufficient funds to accomplish the object will be received.

STAFFORD'S PATENT DRYER AND COOLER.—Mr. J. R. STAFFORD, of Cleveland, Ohio, exhibited a sample of Indian meal which had been prepared by his apparatus fifteen months. It was as perfectly sweet as the freshest and best meal. It had been kept in a common barrel. Mr. S.'s invention appears to be of great value and accomplishes an object which has long been sought. It dries meal and grain by steam. The apparatus consists of a cylinder made of sheet-iron, with flanges arranged on its outer surface. The inside of the cylinder, heated with steam, is made to revolve, carrying round with it the grain or meal, which is thus completely dried without the possibility of being scorched. Samples of meal, flour and grain thus prepared may be seen at the Society's rooms. On motion of Mr. PETERS, the following resolution was adopted:

Resolved. That we consider the Steam Drying apparatus of Mr. Stafford, for the preservation of bread stuffs from souring or heating, a most valuable invention, and one deserving of extensive encouragement, and that we deem it important that the government of the United States should adopt measures to test the qualities of the flour and meal, by sending quantities of it in our public vessels on long voyages in warm climates, and in such other manner as will be best calculated fully to test its preserving qualities.

ADDRESS OF Prof. J. P. NORTON, BEFORE THE N. Y. STATE AG. SOCIETY.—The *Practical Farmer* thus appropriately notices this address:—"We find it characterized throughout by the author's usual clearness and simplicity of style, and by his freedom from cant and humbug. Professor Norton is, to our apprehension, the best of all the scientific writers on agriculture in our country. He recognizes fully the dependence of theory on experiment, as its test, and considers no theory of value any farther than it is borne out by experiment. His addresses are calculated to make plain to the common understanding, matters which in most hands are wrapped up in impenetrable fog; and it is this practical apprehension which gives him his superiority. The address before us will be read with profit by every intelligent man, whether indoctrinated in scientific lore or not; and we hope it may find general circulation.

 We invite attention to the advertisement of Mr. J. B. DORSEY. We are informed that the property he offers for sale is of a very desirable character. The James River and Kanawha canal passes through it, and it has a market at hand for all kinds of meats, fowls, butter, milk, vegetables, &c.

MONTHLY NOTICES—TO CORRESPONDENTS, &c.

COMMUNICATIONS received during the last month, as follows:—H. H. Ingalsbe, A. B. McClean, R. Watkins, C. N. B., F. Roys, J. M. Hyams, A Subscriber, Jethro, P., F. Holbrook, D. Thomas, M. W. Philips.

BOOKS, PAMPHLETS, &c., have been received as follows: Public Documents from Hon. J. I. SLINGERLAND—The Grandeur of Nations, an Oration, by Charles Sumner, Boston, for publisher. T. B. PETERSON, Philadelphia—To — for Premium List, &c. of Yates. Co. Ag. Society.

WINTER GRAIN.—The prospect for winter wheat, from what we learn, is favorable to a good crop. Rye, in this vicinity, was somewhat winter-killed, but we understand the late rains and favorable weather have improved its appearance.

FRUITS.—Peaches were killed in the bud by the extreme cold of the 11th of January last. There have been no blossoms in this vicinity. Plums gave but few blossoms, and cherries rather a small show. Was cold the cause of the failure in the two latter fruits? Apples blossomed well, and pears made an unusual display, and the fruit appears well set.

GOOD CROP OF WHEAT.—Mr. R. J. LIVINGSTON, of New-Brunswick, N. J., informs us that he raised last year from 8 22-100 acres, 272 bushels of R. HARMON Jr's improved white flint wheat. Five years ago, he states, his neighbors told him nothing could be made to grow on the lot. The means used to produce the wheat were, "the subsoil plow, clover, muck and ashes."

SALE OF SHORT-HORNED CATTLE AND MERINO RAMS.—It will be seen by Col. SHERWOOD's advertisement that he proposes to sell a number of his cattle and sheep at the State Fair at Buffalo. In order to afford facilities for those wishing to sell or purchase stock, the officers of the State S. have decided to keep a register of such animals as may be offered for sale at the time of the Fair. This will be a matter of great convenience. In reference to Col. SHERWOOD's stock, we have before remarked that it has been bred with great care, and in blood and qualities will compare favorably with the best herds in the country.

KINDERHOOK WOOL DEPOT.—We invite attention to Mr. BLANCHARD's advertisement of this wool depot. This is the third year the establishment has been in operation, and we believe it has given entire satisfaction to all who have been connected with it in business transactions.

PREMIUM CROPS OF ONTARIO COUNTY, N. Y.—The Agricultural Society of this county awarded premiums for the following crops, grown in 1847. *Wheat*—61 bushels produced on one acre and forty-two rods—equal to 48 bushels and 18 pounds per acre—crop grown by URI BEACH, of East Bloomfield. *Indian Corn*—88 bushels per acre—crop grown by GEO. RICE, of East Bloomfield. *Barley*—55 bushels per acre—grown by BANI BRADLEY, East Bloomfield. *Oats*—70 bushels per acre—grown by BANI BRADLEY.

THE HORSE GIFFORD MORGAN.—We invite attention to the advertisement of this horse in the present number. We are informed by those who have lately seen him, that he was never in better condition, and that he still shows all that animation and vigorous action for which he has been distinguished.

GREAT TROTTER.—An American bred horse called *Blunderbuss*, aged twenty years, lately performed in England fifteen miles in forty-eight minutes and six seconds. His antagonist was seven years old—the old horse won by a quarter of a mile. The said match was

made in harness, and the roads were in rather rough condition.

BLACK HAWK.—By an advertisement in our last, it will be seen that this justly esteemed horse of the Morgan stock will be kept at the stable of Messrs. HILL in Bridport, Vermont, the present season. We believe the popularity of this valuable animal continues undiminished.

CORRECTION.—In Mr. HOLBROOK's article in our last, fourth line from the bottom of the first column, for "where the frost is three or four inches deep," read "when the frost is out three or four inches deep."

THE TAINTOR IMPORTATION OF MERINOS.—Mr. A. L. BINGHAM, of Cornwall, Vt. writes that the lambs from rams of this stock with ewes of his old flock, "make the most splendid cross" he "ever made."

A GOOD USE FOR BAYONETS.—JOHN Q. WILSON, Esq. of this city, has called our attention to a very neat and handy onion-hoe made from a bayonet. A quantity of bayonets having been damaged by fire, Mr. W. suggested that they might be profitably worked up into tools of this description. The socket admits the handle, and about eight inches of the bayonet, curved to the requisite angle, forms the blade of the hoe, which being of steel carries a sharp edge, and in proper hands is *death* on weeds.

DRAINING.—At a late discussion of the subject of draining, at a meeting of a farmer's club in England, it was unanimously admitted that draining should at all times be followed by subsoil plowing, as affording a more ready percolation to rain-water, by which the fertilizing properties of manure in the soil are more effectually held in solution and conveyed to the roots of the growing crop. It was agreed that the best system of draining is by pipes and stones; that no fixed rule as to depth can be followed, as that depends in a great measure on the situation of the land and the nature of the soil and subsoil; but that in all cases the drains should be, when covered, below the reach of the plow.

WAYNE COUNTY, MICHIGAN.—Mr. CHAS. BETTS, of Redford, Mich., writes: "The capabilities of this county are barely beginning to be developed. Science is gradually working its way into the humble dwellings of the farmers of Michigan. Her potent energies will convert the yellow barrens into blooming fields. A thorough system of draining must be adopted throughout the entire county. There never was a place where a thorough knowledge of the principles of draining and their practical utility, are more absolutely needed than here."

USE OF ETHER IN ANIMAL SURGERY.—The English papers speak of the use of this substance by veterinary surgeons in performing surgical operations on horses and dogs. The animals are made entirely insensible to pain by the inhalation of the vapor, and the operations are performed with much more facility and accuracy than in the ordinary way.

VALUE OF CORN-COBS.—We have frequently spoken of the value of grinding corn with the cobs for feeding cattle and horses. When cattle are fed a large quantity of meal, it is not easily digested, owing to its lying too closely together in the stomach. The gastric juice does not easily penetrate the mass. The principal advantage of the cob, we suppose to be that it renders the meal lighter, and enables the digestive organs more easily to manage it. Still we have no doubt that there is some *nutriment* in cobs. We remember an account well authenticated, of a woman in Maryland who in a

season of great scarcity for hay and other cattle-food, begged the corn-cobs from her neighbors, which she boiled and gave to her cow. She wintered the cow in this way, and brought her out in better condition in spring than most of the stock in the neighborhood. We have known of other instances which showed that the cob was capable of affording support to animals.

But a radical kind of writer in a late number of the *Genesee Farmer*, states that he fed cattle and horses on corn and cob meal, and that it injured them! And in order to show his opinion of the worthlessness of this food, he recommends that "crushed flints and ground glass" be used instead of cobs.

A counterpart to this is given in the address of W. H. LAMFORT before the Ontario County Agricultural Society: He says—"Cob meal makes a good feed for cattle, horses or hogs. A friend of mine in Yates county, informed me, he wintered a span of farm horses and kept them in good healthy condition with ground cobs. His course was to thresh off the corn leaving from one to two quarts of corn to the bushel of cobs; which being ground fine, he fed them freely, but with nothing else save dry barley straw."

This is giving rather more value to cobs than we are disposed to allow, but we are confident it is better to grind them with the corn than to feed stock with meal from corn only,—especially when a considerable quantity of meal is to be given.

PRESERVING FRUIT.—In the first number of the *Transactions of the Massachusetts Horticultural Society*, there is an account of a new mode of preserving apples and pears. The inventor of the mode, M. PAQUET, of Paris, has received from the Royal Society of Horticulture a medal. He presented on the 12th of June one hundred pears and apples, which it is stated had not only preserved their beauty, freshness and flavor, but even their perfume. His fruit-house is described as a circular building, with an outer and an inner wall—the size of the building being whatever is convenient. The distance between the outer and inner wall is about three feet six inches. There are windows in both walls, a diffused light being preferred to darkness. The inner room, which is the depository of the fruit, is kept at a constant temperature of about 50 degrees (Fahr.); as low as 39 would not be injurious, but 66 to 73 destructive." Boxes are made with drawers of oak; that wood being easier to be cleaned from the remains of fruit which might decay. "In these drawers," says the account, "the fruits are placed with small intervals between each, on a slight bed, one-sixth of an inch thick, of saw-dust, (not pine, which would communicate an unpleasant flavor,) highly dried in an oven, eight parts, and one part of very dry pulverized charcoal; and with this mixture the interstices between the fruits are filled to about two-thirds of their height, leaving one-third exposed." This mode is deemed greatly preferable to keeping fruits in moss, cotton, paper, or other substances.

The fruit should be gathered with the greatest care, and not in the least bruised; the fairest and finest specimens selected. It should be gathered ten days before it is ripe. After it is gathered, it is directed to leave it in an open airy situation for about fifteen days, to sweat, and on no account be wiped previous to being deposited in the fruit-house.

TRANSPLANTING EVERGREENS.—It seems to be well established that June is the best month to transplant evergreens in this latitude. We know of several trials with white pines in this month which have succeeded better than any we have known transplanted earlier. They require, as well as all resinous trees, great care in taking up, being much more injured in cutting the

roots than hard-wood trees. As much earth as practicable should be left round the roots, and they should not be suffered to dry before they are again put in the ground.

BENEFIT OF TOADS.—These animals are very useful in gardens. They live entirely on insects, which they devour without much regard to the species—the selections being made by toads of different sizes, according to the bulk they are able to swallow. While the toad is small he is only able to feed on gnats, small flies, the smallest beetles, &c.; but when full grown he will swallow almost all insects that infest the garden or field, whether in the larva or perfect state. The number of insects which they are capable of devouring is surprising to one unacquainted with their habits. Several years since the writer ascertained that a large toad, which he kept confined for the purpose of experiments, would devour from eight to twelve grubs, the larvæ of the May-bug or cockchafer, (*Melolontha vulgaris*) per day. There is another advantage which they have over fowls, in gardens—they will do no injury to any plants, their mode of taking the insects being such that the plant is scarcely touched in the act. A few boards should be laid round the garden, raised about an inch from the surface, under which the toads will take shelter in the day-time, as they only feed during the night.

USEFULNESS OF BIRDS.—Few persons appear to be aware of the immense number of insects destroyed by birds. Different species of birds prey on different kinds of insects, or take the same kinds of insects in different stages. Thus swallows, martins, &c. take their food in the air, and catch insects while in the perfect or winged state. They hover much near water, and devour myriads of those insects which live in that element in their first stages. The common apple tree caterpillar is eaten by few birds, but to the cuckoo it seems to be the natural food. One of these birds will in a short time destroy a nest of these injurious pests. They tear open the web with their bills, and besides gorging their craws with the worms, will kill many which they cannot swallow. Robins take their food mostly from the ground—taking such worms as attack grain, grass and garden vegetables. They also eat angle-worms and beetles.

Many kinds of birds may be induced to take up their abode near the habitations of men. They seem to have an instinctive idea that man is (or ought to be) their protector. If they find themselves unmolested, they evidently enjoy a close proximity to the "lords of the creation," and they evince their happiness by their sportive actions and sprightly songs.

TO DESTROY COCKROACHES.—A correspondent of the *Horticulturist* recommends the following, which the editor says he has tried and found "perfectly effectual."

Add about a teaspoonful of powdered arsenic to about a table-spoonful of mashed boiled potatoes; rub and mix them well together, and then crumble about a third of it, every night at bed time, about the kitchen hearth; it will be eaten up or nearly so, by the following morning. The creature is very fond of potatoes, and devouring them greedily, crawls again into its hole and perishes. I had occasion to have some alterations made in the kitchen stove six months after I pursued this plan, and found hundreds of wings and dried mummies of defunct cockroaches. Their disappearance was not attended with the slightest perceptible smell; and though five years have elapsed, not one has again been seen in my kitchen. In putting it into practice, any remaining crumbs should be swept up the next morning.

MACCARONI.—This article is said to be made from wheat of the finest quality, which after having been threshed, is spread upon the flat roofs of houses during the hot weather, and there left exposed to the sun during the day, and to the dews of the evening and morning for a fortnight or three weeks, till it becomes quite hard and dry.

PRICES OF AGRICULTURAL PRODUCTS.

New-York, May 18, 1848.	
FLOUR —Genesee per bbl. \$6a\$6.25—Oswego \$6a\$6.12½.	
GRAIN —Wheat, Genesee, per bu., \$1.37a-140—Corn, northern, 57a58c.—Rye, 72a73c.—Barley 80c.—Oats, 46a48c.	
BUTTER —Orange County, per lb., 20a21c.—Western, dairy, 16a17 c.	
CHEESE —per lb., 7a8c.	
COTTON —Upland and Florida, per lb., 5a7c.—New Orleans and Alabama, 5½a7½c.	
BEEF —Mess, per bbl., \$8.62½a\$9.11½—Prime \$5.50a\$6.	
PORK —Mess, per bbl., \$10.69—Prime, \$8.25.	
HAMS —Smoked Western, per lb., 6½c.	
LARD —in kegs, per lb., 5½a6½c.	
HEMP —Russia clean, per ton, \$230.—American dew-rotted, \$130a\$135.	
HOPS —First sort, per lb., 5a6½c.	
TOBACCO —Virginia, per lb., 3½a7c.	
WOOL —(Boston prices.) May 18.	
Prime or Saxon fleeces, washed per lb.....	45a50 cts.
American full blood fleeces.....	40a45 "
" half blood do	35a38 "
" one-fourth blood and common.....	25a30 "

THE OLD MORGAN GIFFORD.

The highest blooded Morgan Stallion, now remaining, will stand this season at the Stable of F. A. WIER, in Walpole, N. H. Terms, \$25, five dollars of which to be paid at the time of service, and the remaining \$20 if the mare proves in foal. Pasturage furnished as usual.

FRED. A. WIER. } Committee
ELISHA DEWOLF, Jr. } of the
AMBROSE ARNOLD, } Proprietors.

June 1, 1848.—3t*

KINDERHOOK WOOL DEPOT.

This enterprise having met the expectations of its projectors, will be continued upon the following principles:

The Fleeces will be thrown into sorts according to style and quality.

A discrimination will be made between wool in good or bad condition.

All who desire it, can have their clips kept separate.

Sales will be made invariably for cash.

The charges will be, for receiving, sorting and selling, one cent per pound, and the insurance, which will be 25c. on \$100 for a term of three months.

Liberal advances in cash made on the usual terms.

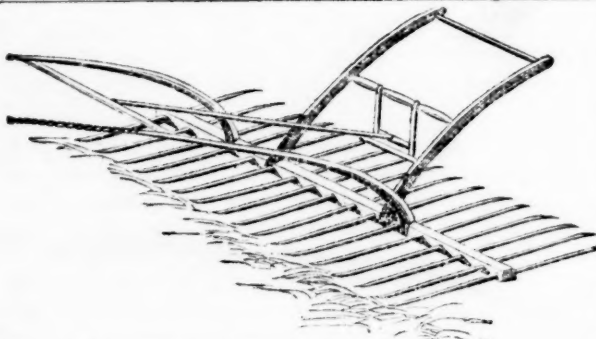
Arrangements have been made with Manufacturers using different grades of wool, to purchase the various sorts at their market value soon after being received at the Depot. If the opening market price is not satisfactory, the wool will be offered for sale at such time as the owner may direct.

Reference can be had to

Dr. J. P. BEEKMAN, Kinderhook; D. S. CURTIS, Canaan;
C. W. HULL, New Lebanon; J. B. NOTT, Esq., Guelderland;
C. H. RICHMOND, Esq., Aurora; Col. J. MURDOCK, Wheatland;
B. P. JOHNSON, Esq., Sec., [N. Y.;
N. Y. St. Ag. Soc. Albany.

H. BLANCHARD, Agent.

Kinderhook, N. Y., June 1, 1848.—3m



HORSE RAKES, Wilcox, Downer's and others.

GRAIN CRADLES, Grant's, Wilcox and others.

HAND RAKES, all qualities.

SCYTHES, R. B. Dunn's, (the best in use.)

SNATHS, Rides, Whet Stones, (genuine Quinnebaug.)

HAY FORKS, Partridge's make, best in use.

A full supply of the above articles on hand, which are offered to the trade and at retail on the lowest terms. For prices, description, &c., see Catalogue Agricultural Warehouse, gratis at Store, Nos. 10 and 12 Green st., or by mail. H. L. EMERY.

WEBSTER'S DICTIONARY.

THE ENTIRE WORK, UNABRIDGED.

In one volume, Crown Quarto; containing all the matter of Dr. Webster's original work, his improvements up to the time of his death, and now thoroughly revised and greatly enlarged and improved by

PROF. C. A. GOODRICH,
OF YALE COLLEGE.

PRICE REDUCED TO SIX DOLLARS.

IN the language of an eminent critic, "In its Definitions—the object for which nine tenths of our references to such a work are made—it stands without a rival in the annals of English lexicography." These definitions, without abridgment or condensation, are only given in this, Dr. Webster's larger work, and are not found in any mere abridgments, or works on a more limited plan. It contains THREE TIMES the amount of matter found in any other dictionary of the English language compiled in this country, or any abridgment of this work, yet is sold at a trifling advance above the price of other and limited works.

TESTIMONIALS.

"The new edition of Webster's Dictionary, in Crown Quarto, seems to us deserving of general patronage for the following reasons:—

In the exhibition of the etymology of the language, it is superior to any other dictionary.

[Here follow specifications of its excellence, in its definitions, orthography, pronunciation, extent of vocabulary, Tables of Geographical, Scriptural, Classical and Proper Names.]

We recommend it to all who desire to possess the most complete, accurate, and Reliable Dictionary of the Language."—March, 1848.

Theodore Frelinghuysen, Chancellor of the University of New York.

William H. Campbell, Editor N. Y. District School Journal.

Daniel Webster, United States Senator.

Thomas H. Benton, " " "

John Davis, " " "

Jefferson Davis, " " "

S. A. Douglass, " " "

George N. Briggs, Governor of Massachusetts.

William B. Calhoun, Secretary of State of Massachusetts.

Richard S. Rust, Commissioner of Common Schools in New Hampshire.

Theodore F. King, Superintendent of Schools in New Jersey.

Robert C. Winthrop, Speaker of the United States House of Representatives.

Edmund Burke, Commissioner of Patents.

John Young, Governor of New York.

Christopher Morgan, Secretary of State, and Superintendent of Common Schools in New York.

Alva Hunt, Treasurer of New York.

Millard Fillmore, Comptroller.

Rev. Samuel H. Cox, D. D.

Lyman Beecher, D. D., President of Lane Seminary.

Calvin E. Stowe, D. D., D. H. Allen, Professors in do.

Rev. Heman Humphrey, D. D., late President of Amherst College.

Rev. Ezra Keller, D. D., Pres. of Wittenberg College, O.

M. A. Diehl, N. A. Gieger, Professors in do.

Benjamin Larabee, D. D., President of Middlebury College; and

other distinguished gentlemen.

From George M. Dallas, Vice President of the United States.

"The Crown Quarto edition ought to receive universal favor, as a monument of American intellect and erudition, equally brilliant and solid, more copious, precise, and satisfactory than any other work of the kind."—March, 1848.

From Pres. Olin, of the Wesleyan University.

"Webster's American Dictionary may now be recommended, without reserve of qualification, as the best extant."—December, 1847.

From Pres. Hitchcock, of Amherst College.

"I have been in the habit of using Dr. Webster's Dictionary for several years past, in preference to all others, because it far excels them all, so far as I know, in giving and defining scientific terms."

From Rev. Dr. Wayland, President of Brown University, Providence, R. I.

"I have always considered Dr. Webster's work in lexicography as surpassed in fullness and accuracy by none in our language."

From Hon. Thomas H. Benton, United States Senator, April 18, 1848.

"The work is of standard excellence. With some long acquaintance with lexicology, and not without some pretension to knowledge in that branch of science, I have not seen a dictionary so entirely to my mind as your edition of Mr. Webster.

"We venture to say that there is no dictionary in the English language which combines so many advantages, with such economy of price, beauty of execution, compactness and clearness, as this Quarto Edition of Webster."—N. Y. Observer, Dec. 4, 1847.

"This is the complete Webster—and perhaps the only complete Dictionary of the English Language."—Philadelphia U. S. Gazette.

Published by G. & C. MERRIAM, Springfield, Mass.,

And for sale by booksellers generally throughout the country.

EVERY FARMER'S BOOK !!

FIVE THOUSAND COPIES SOLD IN FOUR MONTHS !!

Illustrated Treatise on Domestic Animals,

BEING A HISTORY AND DESCRIPTION OF THE

Horse, Mule, Cattle, Sheep, Swine, Poultry, and Farm Dogs.

With Directions for their Management, Breeding, Crossing, Rearing, Feeding, and preparations for a profitable market.

ALSO, THEIR DISEASES AND REMEDIES;

Together with full Directions for the Management of the Dairy, and the Comparative Economy and advantages of working Animals, the Horse, Mule, Oxen, &c.

BY R. L. ALLEN,

Author of "Compend of American Agriculture," &c.

THE above work contains more than 40 Engravings and Portraits of Improved Animals, illustrative of the different breeds and various subjects treated in it.

The most minute as well as general principles for Breeding, Crossing, Rearing, Feeding, and Management of all Domestic Animals, are herein given, to produce the utmost marketable value for the food and attention bestowed on them; as well as to prevent disease, and save the immense losses which annually occur from this source.

It can be sent by Mail, in Cloth Binding, 75 cents—Paper 50 cts.

Published by C. M. SAXTON, 205 Broadway, N. Y.

For sale by all Booksellers throughout the country. Agents wanted for every county in every State. Address, post paid, to the Publisher.

OPINIONS OF THE PRESS.

The compactness yet completeness will make it a favorite with agriculturists.—*Chronicle, Philadelphia.*

We have examined the book and come to the conclusion that no farmer should be without it.—*Sat. Gleaner.*

Its greatest worth is, as a complete Farrier, showing the disease of animals, their treatment, and cure.—*Far. & Mec.*

The portion which relates to the dairy alone, is worth the cost of the book.—*Worcester Transcript.*

One of the most useful books which has come to our notice.—*N. J. Journal.*

It is every way adapted to be serviceable in every household which has domestic animals.—*D. Adv. Newark.*

We believe it a complete guide for the farmer and dairyman in the purchase, care, and use of animals.—*Jeffersonian.*

Here is a work which should be in the hands of every farmer.—*Highland Courier.*

We can confidently recommend this work as a very descriptive one to those engaged in farming, raising stock or husbandry.—*Northampton Courier.*

The author is a practical farmer and stock-breeder, and is able to vouch for the correctness of the remedies for diseases of Domestic Animals, as well as the best mode of managing them.—*Huron, O., Reflector.*

Here is a book for the million, written by a gentleman of experience and science, in which the farmer will find information which will save him much anxiety, unproductive labor, and useless expense.—*Newburyport Watchman.*

It costs but seventy-five cents, and cannot fail to be worth ten times that amount to any farmer.—*Summit, S. C. Beacon.*

It is the best of that character we have yet seen; no farmer should be without it.—*Democrat, Carlisle, Pa.*

This is just such a book as every owner of stock should be possessed of.—*Easton, Md., Star.*

Here is a book which all—those who follow the plow, and those who direct it—can read to profit. It is a library of knowledge, presenting the latest improvements and discoveries, on all the topics treated of; and illustrated by a great variety of cuts. The "Allens," one of whom is the author of the work before us, are quite famous in their especial role, so that what proceeds from them may be confidently credited to all events. The present book is a most interesting and instructive one and must meet with a great sale.—*Sciota Gazette.*

It will give impulse, encouragement, and success to every one fond of raising fine, healthful and profitable farm animals. Every such farmer may be sure of real pleasure and profit in studying the book. The young sons and daughters of farmers will find evenings well and pleasantly spent in gaining from it the information for which they will have practical use the rest of their lives.—*Old Colony Memorial.*

Most earnestly do we wish that every agriculturist, in our section, would possess himself of this really interesting book, and abide by its precepts. Sure are we, that the result would soon be exhibited in an improvement of stock generally.—*Parkersburg, Va. Gazette.*

This work, to the farmer and stock raiser, will be useful, instructive, and profitable, enabling them to improve the breed of their stock, preserve them from sickness, and cure them when infected with disease.—*Herald, Morrisville, Pa.*

The time is gone by when farmers can expect to succeed without giving some attention to Book Farming, and we trust they begin to see it for themselves. We should like to know that this work was in the hands of every farmer in the country.—*Mercury, Pottsdam, N. Y.*

The individual who is seeking general information, will peruse it with pleasure, while the farmer who desires to gain practical

knowledge, will read it with interest. The farmer who would carry on operations successfully in his line, should not be without it.—*Signal, Beloit, Me.*

The title page of this work gives a good idea of its scope and intent. It is a comprehensive summary of farm operations, and will prove very acceptable to the great mass of our farming population. We are informed that 3,000 copies of the work have been sold since the first of January. It is well printed and profusely illustrated.—*N. Y. Tribune.*

It is furnished with numerous illustrating cuts, and will form a complete "vade mecum" for the agriculturist, convenient for reference and to be relied on when consulted.—*Baltimore American.*

This is a practical book by a practical man and will serve extensive practical ends. It is a companion which every farmer will feel that he cannot well be without.—*N. Y. Observer.*

We cheerfully recommend this work to farmers.—*Signal, Juliett, Ill.*

We anticipate an extensive sale for this work.—*Ohio Cultivator.*

The work ought to be in the hands of every planter.—*N. O. Delta.*

The author is a gentleman of fine attainments, and who ranks as one of the most accomplished writers on agricultural subjects in the country.—*Ala. Planter.*

Many a valuable animal is lost, every year, for want of the knowledge here conveyed.—*Eagle, Brattleboro, Vt.*

The author (Mr. Allen) is a practical man, and everything from his pen, on subjects connected with agriculture and cattle breeding, is valuable to those who prefer matter of fact to mere theory.

The work comes at seventy-five cents. The information contained in it is worth three times that amount. His directions for the management of the dairy will be of great service to those not versed in that important art.—*Maine Farmer.*

The above work is kept constantly for sale at the office of the Cultivator, Albany.

16,000 IN ONE YEAR.

COLE'S American Veterinarian, OR DISEASES OF DOMESTIC ANIMALS.

A Book for every Farmer!

AND a book which every Farmer should own and may own, by paying the small sum of FIFTY CENTS, which may be the means of saving the life of many valuable animals, and from which he may derive a vast amount of the most valuable information in regard to the Training and Breeding of Animals, as well as full Rules for Restoring and Preserving Health.

16,000 COPIES

of this valuable work have been sold in ONE YEAR,—and we have testimonials enough in its favor, from those who have purchased and examined it, to fill a volume. We publish a few only.

"No Farmer's Library is complete without Mr. Cole's Treatise on the Diseases of Domestic Animals."

From William Bacon, Richmond.

This book is just what farmers want. The prescriptions are simple, always accessible, and harmless to the constitution.

From the Christian Herald, Newburyport.

It is truly "a book for every farmer." We have been most astonished at the amount of important information and instruction which it contains, on the training, breeding, and diseases of domestic animals. It is compiled by one of the best agricultural writers in the country, from his own experience and observation, as a practical farmer, and conductor of agricultural papers.

From Wright's Paper, Philadelphia.

"Cole's American Veterinarian," is an invaluable book. It is worth its weight in gold to any person having the care or charge of domestic animals. An agricultural friend, to whom we gave a copy, observed that it would save him a hundred dollars a year.

From the American Agriculturist.

The farmer will find much valuable information in this little work. By reference to its directions, they may be able to save a valuable animal, which otherwise might be lost.

From J. M. Weeks, Vermont.

The American Veterinarian is the best book of the kind that I have ever seen.

From Levi Bartlett, New-Hampshire.

This book should be in the library of every farmer.

From the Farmer's Visitor, by Gov. Hill, N. H.

As the Editor of that excellent agricultural paper, the Boston Cultivator, and other kindred works, Mr. Cole has shown himself well qualified for the compilation of this work. We have known him for years, and he has proved himself to be one of the most persevering and able of our agricultural editors. We understand his new book has already had a free and extended sale. Many times its price to almost any farmer, may be saved in its purchase.

Published, and for sale at wholesale and retail, by

JOHN P. JEWETT & CO.

23 Cornhill, Boston.

100 agents could make money on this book in various sections of the country. None need apply except those who can command a small cash capital of from \$25 to \$50. Address, post-paid, the Publishers, 23 Cornhill, Boston.

For sale at the office of "THE CULTIVATOR."

June 1—31.

BURRELL'S SHELL WHEEL PLOW.

THESE Plows run *thirty per cent. lighter* than the common plow, and work well on all soils, in all conditions.

An impression has gone abroad that they answer only "on smooth lands where there are no stones, or other obstructions." Such is not the fact—they make good work on all lands, rough or smooth, and are more fully appreciated among roots or stones, and on stiff clay, and hard gravelly soils. Two thousand of them have been in use during the last three years among our best farmers, and give entire satisfaction.

For sale wholesale and retail (warranted) an assortment of the above (from No. 3 to 12) capable of turning a furrow of from 10 to 20 inches wide, and from 6 to 14 inches deep. A liberal discount to dealers.

E. J. BURRELL.

Geneva, April, 1848—6t.

SHORT-HORN DURHAMS FOR SALE.

THE subscriber has a few young thorough bred Durhams on his farm two and a half miles from Troy, which he offers for sale, viz: 1 two year old bull—1 yearling bull—2 do. about eight months old—6 yearling heifers—2 two year old do.—and a few spring calves, bulls and heifers. These young animals were all got by my imported bull Duke of Wellington and my premium bull Meteor. Meteor was got by bull Duke of Wellington, out of my imported Duchess heifer.

The dams of some of these young animals, were imported; but from other herds than that of Mr. Bates; and others are from Durham cows, bred in this country, and are good milkers. The sires being from the celebrated herd of Thomas Bates, Esqr., (England.) renders them valuable for a cross on other Durham stock, as well as to farmers who wish to improve their herds. The estimation put upon this strain of blood by those who know its value, may be estimated by stating that the only bull calves which I have had to dispose of from the Bates cows and bulls, (three in number, have sold at \$300 each. The young animals above enumerated will be sold at prices ranging from \$100 to \$150.

GEO. VAIL.

Troy, May 1st, 1848—4t.

HORSE POWER, THRESHER, AND CORN SHELLER DEPOT.

ORDERS for the "Warren's and Trimble's best two and four Horse Powers and Threshers," Hand Threshers, Waterman's Corn Shellers, and other Agricultural Machinery, at wholesale and retail, will continue to be promptly attended to, as heretofore, by the subscribers at No. 5 Burling Slip, and 126 Pearl-st., New-York city. Nov. 1, 1847.—8t.

JAMES PLANT & Co.

ENGRAVING ON WOOD.

THE subscriber is prepared to furnish Engravings on Wood, of all descriptions, at the shortest notice, and upon the most reasonable terms.

Also, DESIGNS AND DRAWINGS

of machinery for the PATENT OFFICE, furnished with the necessary specifications.

Inventors of agricultural implements, as well as others who purpose applying for Letters Patent, or wish to have an engraved representation of a machine, will find it to their advantage to call, as the experience of the subscriber enables him to furnish the above in a short time, and at a less cost than is generally charged elsewhere.

N. B. Letters prepaid, containing a suitable sketch and description, attended to. In such cases, a reasonable fee is required.

Room No. 1, Sun Buildings.

A. R. HAIGHT.

March 1—5t*.

107 Fulton-st., New-York.

P. SEYMOUR'S BROADCAST SOWING MACHINE.

THE undersigned is manufacturing this machine at East Bloomfield, Ontario County, N. Y., where he will promptly attend to all orders for machines, and all applications for the right to manufacture and vend the same.

This machine is the best implement in our country for the purposes for which it is intended. It sows *correctly* (and any desired quantity per acre) all kinds of grain, from peas to grass seed, including wheat, rye, oats, barley, buckwheat, hemp, clover and timothy seed; also plaster, lime, salt, ashes, bone-dust, &c. It is capable of dusting every square inch on a whole acre of land with less than half a bushel of plaster; and 30 or 40 bushels of lime may be thus evenly applied to the same amount of land if desired. It has recently been very much improved, and is now a very durable article, and recommends itself to every intelligent observer.

P. SEYMOUR,

May 1, 1848—2t*.

East Bloomfield, Ontario Co.

GOOD NEWS FOR THE BLIND!

DR. KNAPP, Oculist, at 493 Broadway, Albany, N. Y., attends exclusively to cases of Blindness, from 9 to 5 o'clock. His method of restoring sight is of recent discovery, and the results have proved that where a person can distinguish day from night, a reasonable hope of recovery may be entertained. The treatment is without an operation.

On application, either verbal or by letter, persons will be designated (residents of Albany) who from being unable to discern any object, some for more than thirty years. (taken blind during infancy.) can now, after treatment, see to walk alone, and see articles as small as a silver pencil.

Those interested will consult the highest good of the Blind by giving such attention to the above as its nature merits.

P. S. Blind Cataracts removed without an operation.

April 1—4t.

WATER PIPES FOR HYDRANTS, PUMPS, &c.,

Of	in. calibre, and	wg. from 1 lb.	8 oz. to 3 lbs.	8 oz. per yd.
"	do	do	1 14	6 do
"	do	do	2 8	8 do
"	do	do	3 8	10 do
" 1	do	do	5 10	14 do
" 1 1/2	do	do	6 12	17 do
" 1 1/2	do	do	11	19 do
" 2	do	do	16 12	27 do
" 2 1/2	do	do	23 8	50 do
" 3	do	do	28	59 do
" 3 1/2	do	do	45	80 do
" 4	do	do	49	90 do
" 4	do	do	waste pipe.	15 14 do
" 4 1/2	do	do	do	17 4 do
" 5	do	do	do	34 do

Prices of the above pipe 6 cents per lb. A. B. ALLEN & Co., May 1—2t, 189 & 191 Water-street, New-York

ASHES FOR SALE.

THE subscriber has on hand at his Soap and Candle Manufactory in Cabotville, situated a few rods from the Railroad, and a short distance from the Connecticut river, *Six or Eight thousand bushels of LEACHED ASHES*, mostly from hard wood, which are constantly accumulating, and which will be delivered on board a boat, or the cars, on reasonable terms—affording an excellent opportunity for Long Island farmers, or others having access to railroad or water communication, to improve their lands. For further particulars address

G. M. BIGELOW,

May 1, 1848—6t.

Cabotville, Mass.

NORMAN or MORSE'S GRAY.

THIS celebrated horse will stand the ensuing season at the stable of James Rice, in Germondville, three miles north of the village of Lansingburgh. Norman is a beautiful dapple grey, 15 1/2 hands high, strongly made, and finely proportioned. He combines first rate trotting qualities, and great powers of endurance, with unsurpassed gentleness and docility. His colts are justly celebrated for speed, bottom and good temper—are eagerly sought after in the market, and command prices ranging from \$150 to \$500. The very high reputation of Norman's stock as "road horses," and the extraordinary prices they command, renders him by far the most profitable horse to breed from of any in the country. Gentlemen sending mares from a distance, may rest assured that they will have such attendance and keeping as the owners desire, and upon the most reasonable terms. The horse will be under the charge of his former owner, Mr. Morse. Terms—\$10 the season. Insurance to be agreed upon. Communications addressed, I. T. GRANT P. M., Junction, Rensselaer county, will receive prompt attention. April 1—4t.

PITT'S DOUBLE PINION HORSE POWER, SEPARATOR, AND CORN AND COB MILL.

I hereby give notice that I am now making a large number of the above machines, which I offer to those who wish to purchase as superior to any machine of the kind now in use.

For the information of those who are unacquainted with my Separator, I will say it threshes and cleans from three to five hundred bushels of wheat per day, and from six hundred to one thousand bushels of oats, and other grain in proportion.

The machine has proved itself superior to all others for the purpose designed.

It has been exhibited in various parts of the United States at State Agricultural Fairs, also in Canada, and has always taken the First Premium.

My Double Pinion Horse Power has been in operation in Western New-York and Ohio for several years past, and is now admitted wherever it is known, for ease, convenience, strength, durability and cheapness of repair, to surpass any other Horse Power.

The Power is so constructed as to entirely obviate the danger and inconvenience of the large spur wheel, so objectionable in other Powers. It may be used to as good advantage with two horses as any two horse power, and is sufficiently strong and durable for eight horses.

Price of Separator one hundred and fifty dollars.

do Horse Power and Separator complete, two hundred and fifty dollars.

Five per cent. deducted for cash.

The Corn and Cob Mill I have enlarged to about double its original capacity. the teeth have been rendered more durable, which, together with other improvements has greatly increased its value. It is furnished with a hopper to feed loose grain, and a tube to feed corn in the ear.

The Mill gives general satisfaction, is durable, easily kept in order, and for the use intended is acknowledged superior to any other mill.

Price Fifty Dollars.

May 1, 1848.

JOHN A. PITTS,

Rochester, Monroe Co., N. Y.

FARM IN MICHIGAN FOR SALE.

I HAVE a good improved farm of 145 acres, three miles from the village of Ann Arbor, for sale. Price \$2200. Also 37 acres improved land one-half mile from said village—price \$1200. Also 20 acres one and a half miles distant, for \$500. Emigrants will do well to give me a call.

WM. S. MAYNARD,

May 1, 1848—2t.

Ann Arbor, Michigan.

VALUABLE BOOKS

For sale at the Office of the Cultivator:

IMPORTANT TO FARMERS, GARDENERS, AND FLORISTS.

A New Manure, Warranted Superior to any Other.

MR. BOMMER has on hand one hundred casks—500 lbs. each—of the celebrated "French Guano," an inodorous chemically prepared fertilizing Powder, adapted to every soil and all plants, and acknowledged in Europe as the best and most profitable manure ever known. Price of a cask, \$5.

Families having small gardens or flowers, can be supplied with small bags containing 15 lbs. at 25 cents, or 36 lbs. at 50 cents, at his office 72 Greenwich-st., New-York city. April 1—18.

THE EAGLE PLOW.



Nourse and Mason.

PROBABLY no Plow has been so long before the public with so few alterations, come into so general use, or received so many, and of so high grade premiums, as the Eagle Plows, from the establishment of Messrs. Ruggles, Nourse and Mason.

Notwithstanding the great diversity of soils, modes of culture, and the increasing competition of many distinguished manufacturers, and year after year having been subjected to the most systematic, persevering and thorough trials ever had in this country, it still stands at the head of the list for excellence of work, materials, workmanship, durability and price.

By referring to the advertisement of the manufacturers in this and the last number of the Cultivator, will be seen the high estimation put upon them by committees and plowmen, as well as their very general use where they have become known.

It is but just here to state, that in the most important trials in New England, the plowmen are required to use the same plows and teams which have been used on their farms, not less than sixty days previous to the trials. The owners are required to hold their own plows, to perform a certain amount of work, usually one-eighth of an acre of a given width and depth of furrows, in a given time. All of which rules and regulations are made known months before-hand, thus avoiding very many difficulties which often arise in deciding who really merit the awards and premiums.

A full and complete assortment constantly on hand and for sale at manufacturer's home prices at wholesale and retail, at the Albany Ag. Warehouse, Nos. 10 & 12 Green-st., Albany, by April 1.

H. L. EMERY.

183 FRONT-STREET, NEW-YORK.

THE subscriber, manufacturer and dealer, has constantly on hand an extensive assortment of Agricultural Implements of the latest and most approved patterns.

Plows adapted to every description of soil, embracing a greater variety of patterns than can be found in any other establishment in the United States.

Moore's highest premium Plows. Two and Three Furrow Plows. Freeborn & Hitchcock's do. Side Hill and Double Mold do. Minor, Horton & Co's do. Cultivators with Steel and Cast Ruggles, Nourse & Mason's do. Teeth. Prouty & Mear's do. Harrows plain and double hinged Subsoil do. Garden & Canal Wheelbarrows.

Single and Double Corn Shellers. price \$5 to \$10. Straw Cutters, Greene's, Steven's, Sinclair's, and other approved patterns.

Mills for grinding Grain. Corn and Cob Crushers.

Horse Powers and Threshing Machines.

Fanning Mills, Revolving Hay Rakes, Rice do. Hay and Manure Forks, Coffee Hullers, Scythes & Snathes, Sugar Mills, Ox Yokes and Bows, Grain Cradles, Log and Trace Chains, Seed Sowers, Spades and Shovels.

Plow Castings, Castings for Horse Powers, Mill and Gin Gear, &c., &c. Also on hand and made to order, every description of Brass, Copper and Iron Wire, Cloth, Sieves, Screens, Riddles, &c., &c., all of which will be sold as low as they can be purchased at any establishment in the country.

JOHN MOORE,

Ag. Warehouse, 193, old No. 183 Front-st., New-York.

April 1—31.

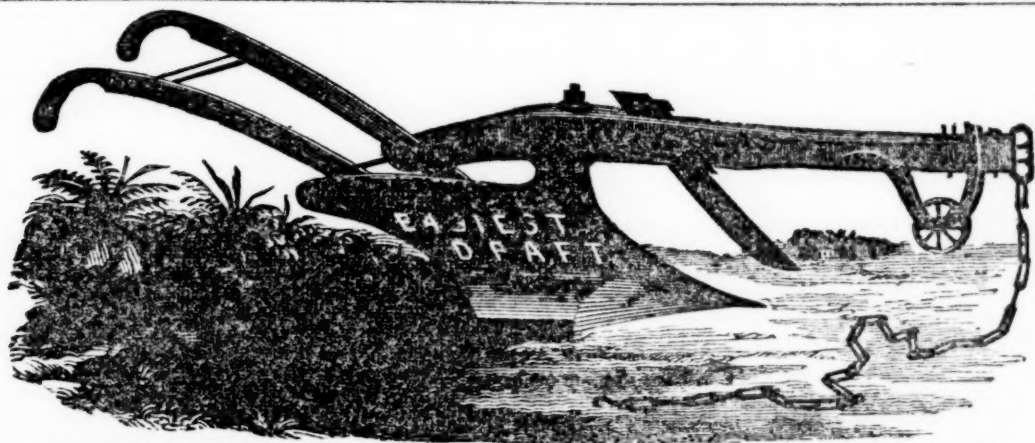
THE GENUINE MORGAN HORSE,

GENERAL GIFFORD, will stand the ensuing season on Mondays, Tuesdays and Wednesdays, at the stable of George A. Mason, two miles northeast of Jordan; Thursdays, Fridays and Saturdays at the stable of D. A. Munro, Camillus.

Terms—\$10 the season. Insurance to be agreed upon. Pasture furnished by either of the subscribers at reasonable prices. Escapes and accidents at the risk of owners. General Gifford was sired by Gifford Morgan. His dam a pure Morgan. Breeders of good horses are invited to call and see him.

April 1, 1848—31.

MUNRO & MASON.



JOHN MAYHER & Co's.

Highest Premium Improved Eagle Plow,
Manufactured and sold at the United States Agricultural Warehouse, 195 Front-St., N. Y.

THESE Plows combine new and important improvements, adapted to the different qualities of soil, and the various modes and systems of culture. Their Eagle Plows, as improved, are much longer; the mould board, landside, and share, are extended without any addition to the draught of the plow, thus adapting this plow to the more perfect turning and running under the green sward, and inverting the furrow slice, so desirable in green sward plowing—the principle of these plows is such, from where the furrow is received upon the mouldboard to where it leaves it, that it enables the plow to take up the furrow slice with the greatest possible ease, bearing equally and lightly upon the whole surface of the mouldboard, turning it over with the least possible bending or twisting, and preserving it flat, smooth and unbroken; laying the furrow slice closely and compactly side by side, and creating but slight friction upon the face of the mouldboard. Passing through the soil thus, the plow requires very little power of draught beyond what is required to cut out the furrow slice. In testing the quality of these plows, the power by which they are moved—the ease with which they are handled, and the manner in which they complete the work, are three important points, all of which are wisely, accurately and judiciously preserved. The character of these plows for ease and draught and management, and the excellence of their work, though well established in the minds of the community, was most fully exhibited to the public at the grand trial of plows by the American Institute at Harlem and Long Island, October, 1847, whose able and impartial committee awarded the highest premium to J. Mayher & Co., for the best plow for doing the best work with the least draught, (in a trial open to the

whole Union,) running in its natural course, and keeping in its true position without any effort of the plowman, and turning a furrow 12 inches wide and 6 inches deep, with a much less draught than any other plow on the ground, among which were the Bergen Plow, Minor and Horton Plow, John Moore's Plow, and B. Myers' Plow, of Newark. The Eagle Improved Plow of J. Mayher & Co., was at the late trial pronounced by the committee and experienced farmers to be the nearest perfection of any implement of the kind in this country, in respect to materials, workmanship, and in form of construction. The castings are of superior kind, they are made out of the strongest kind of cast iron, the point and edge of the share and base of the landside, are steel chilled hardened, and will wear out six shares and landsides of the common plows; the workmanship of this plow is nothing inferior to any in the country; the timber of which it is made is the best of white oak; every farmer knows that timber in his plow is of the utmost importance—all of which in fact renders the Eagle Plow the very article every farmer wants. The high character of these plows is abundantly sustained by a continued and extended patronage, which the manufacturers hope by their efforts and exertions to retain. Being experienced Plow Makers, they will not spare any exertions to render their plows superior to all others.

They have also for sale over one hundred different kinds of plows, all of the latest and most improved kinds, together with the most extensive assortment of Agricultural Implements ever offered in the city of New-York, among which may be found a large assortment of Harrows, Cultivators, Wheelbarrows, Ox Yokes and Bows, Shovels, Spades, Hay and Manure Forks, Rakes, Hoes, Scythes, Snathes, Cradles, &c., &c., all of which they will sell cheaper than they can be purchased in any other store in the United States.

JOHN MAYHER & Co.,

United States Ag. Warehouse, No. 195 Front-st., N. Y. March 1, 1848—31.

CONTENTS OF THIS NUMBER.

COMMUNICATIONS.

Farming of Clark Rice—Management of Muck—Irrigation—Seeding in August—Improvement of Light soils—Planting a Forest, by F. HOLBROOK.....	169
Manufacture of Cheese, By A. L. FISH.....	171
"Spare that Tree," by R.....	174
Oxen for Farm Teams, by S. A. LAW.....	176
Preserving Dried Fruits, by several correspondents—Preserving Tomatoes, by A. SUBSCRIBER—Raspberry Vinegar, by P.....	177
Culture of Indian Corn, by GAUIS BUTLER.....	178
Budding—Mildew in Gooseberries—White Blackberry—Hawthorns—Fall Planting Gooseberry Cuttings—Fruit Trees in Clusters—Cherry Trees Split by the Sun—Mixture of Beets and Carrots, by Rev. E. C. GOODRICH.....	180
Insect Injurious to the Grape-Vine and Destruction of Fruit-buds by Frost, by D. THOMAS—Popular Errors, by W. R. PRINCE.....	181
Diseases of Fruit Trees, by R. G. ROGERS.....	182
Budding once more, by J. D.....	183
Description of Drill Barrow, and Culture of Indian Corn, by ROBT. WHITE, Jr.....	184
The Norman Horse, by J. B. BURNET—Large Corn Crops in Indiana, by T. WOOD.....	185
Farming on Long Island, by C. N. B.—Protection for Bees, by E. D. ANDREWS—Suggestions to Farmers, by ONEIDA, Seedling Potatoes, &c., by E. HAMMOND—Hints for Preventing Consumption, by A. B.—Fastening Shingles, by P. S. BUNTING.....	187
Horses for all work, by J. H. REID—Experiment in sowing Wheat, by A. C.—Statistics of Lowell, by Wm. BACON.....	189
Tan-bark for Manure, by E. R.....	190
Curing Indian Corn, by S. M. HYAMS.....	191

EDITORIAL.

Washing and Shearing Sheep.....	173
On the Construction of Plank Roads.....	175
Various Diseases of Poultry.....	179
The Curculio—Albany and Rensselaer Hort. Society.....	182
Strawberry Runners—Productive Apple Trees—Bassano Beet—Stealing Fruit.....	183
Wheat and Chess—Agricultural Products of the United States and France—Long and Short Eggs.....	184
Western Virginia—Guano and Ashes—"The Spirit of Agriculture".....	188
On the use of Long and Short Manure.....	189
Description of Seymour's Sowing Machine.....	190
Preservation of Manure—Phosphate of Lime—The Salmon of Oregon—The Potato Disease.....	191
Answers to Inquiries—Farming on 37 Acres.....	192
New Publications—N. Y. State Ag. Society.....	193
Monthly Notices—To Correspondents, &c.....	194

ILLUSTRATIONS.

Figs. 45, 46—Contrivances to catch curculios.....	182
Fig. 47—R. White's Drill Barrow.....	184
Fig. 48—Chess Plant.....	186
Fig. 49—Seymour's Sowing Machine.....	190

SALE OF SHORT HORNED CATTLE.

I WILL Sell at Buffalo, during the days of the State Fair, on the 5th, 6th and 7th September next, under the directions of the Officers of the New York State Agricultural Society, Twenty to Twenty-five thorough bred Short Horned Cattle, consisting of Cows, Heifers, and young Bulls. A catalogue with their pedigrees will be ready at the time of the fair.

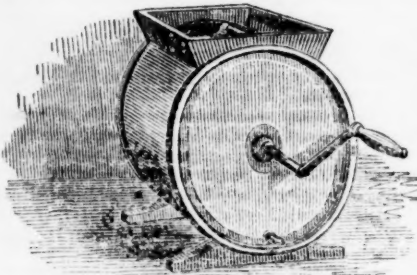
Also, I will sell at the same time, Fifty Merino Rams, bred from the Blakeslee flock, and six South Down Rams.

References—A. B. ALLEN, N. York; SANFORD HOWARD and B. P. JOHNSON, Albany; FRANCIS ROTCH, Butternuts; and L. F. ALLEN, Black Rock. JOHN M. SHERWOOD.

Auburn, May 16, 1848—4t

HORSE POWERS.

FARMERS in want of good Horse Powers and Threshing machines, will find them at the Albany Agricultural Warehouse and Seed Store. For description and recommendations, See Feb. No. of Albany Cultivator, for 1847 & 1848—also May No., 1848. Descriptive Catalogue gratis.



10 & 12 Green-street, Albany, New-York, or June 1, 1848.

"KENDALL'S CHURN." The sale of this Churn has been unequalled in the history of Churns. As they are all warranted to work to the satisfaction of purchasers, there is little risk in trying them. For prices, see Catalogue of Agricultural Warehouse gratis at Store, Nos. 10 & 12 Green-street, Albany, New-York, or by mail.

H. L. EMERY.

AFRICAN GUANO.

A SUPPLY of the above valuable Manure, just received and for Sale, at 2cts per lb., for one ton, or more; less than one ton, 2½cts. per lb. A cargo of Peruvian Guano soon expected to arrive, fresh from the Chinche Islands.

A. B. ALLEN & Co.,
June 1, 1848.—1t 189 & 191 Water-street, New-York.

AMERICAN AGRICULTURAL WAREHOUSE AND SEED STORE.

S. C. HILLS & Co., No. 43, Fulton Street, (removed from 189 Water Street) offer for sale, Prouty's Ploughs and Horse Rakes, Mayher's and Moore's Ploughs, Corn Mills, Corn Shellers—Catchpole's very superior Stalk and Straw Cutters, Hovey's do. do., Grain Cradles, Churns, &c. &c. Also, Garden and Flower Seeds, raised by the Shakers, and warranted good; Fruit and Ornamental Trees and Shrubbery, supplied on short notice.

June 1, 1848.—3t

HYDRAULIC RAMS.

A COMPLETE assortment of these useful machines constantly on hand at the Albany Agricultural Warehouse, where one in constant operation may be seen.

H. L. EMERY.

See the following Certificate.

I have used the Improved Hydraulic Ram since the latter part of October, 1847, and can recommend the same to all who may wish to be supplied with running water in a permanent and durable manner. The distance from my spring to my house is 56 rods; the elevation about 70 feet; the fall from the spring to the ram is 6 feet. I have more than enough water from a half-inch pipe to supply my house, and to water 50 head of cattle, and would not be deprived of the same for double what it cost.

CLARK LEWIS, 2d.

German, Chenango Co., N. Y., April 15, 1848.

HUDSON AG. WAREHOUSE & SEED STORE, FURNACE BUILDINGS, HUDSON.

THE Subscriber offers for Sale, all kinds of FARMING IMPLEMENTS and TOOLS, GARDEN and FIELD SEEDS, on as good terms as at any other establishment.

Horse Powers, single and double Threshing Machines, with or without Separators, Plows of all kinds, including D. Prouty & Co's Centre Draft; sub-soil and side-hill Plows, Road Scrapers, Cultivators, Seed Sowers, (Pratt's), Straw Cutters, of various patterns, Kendall's Churns, Endless Chain Dog-Churns, Corn and Cob Crushers, Iron Rakes, of all sizes, Hay Forks, Manure Forks, Shovels, Spades, garden and field Hoes, Grant's Fan Mills, Scythes and Snaths, Ox Yokes and Bows, Ox Balls, Bull Rings, Grain Cradles, Grass Hooks and Shears, Bill Hooks, Scythe Stones, &c. &c.

J. A. GIFFORD.

Hudson, May 9, 1848—5t*

VIRGINIA LAND AND WATER POWER FOR SALE.

A FARM of 260 acres of highly improved, land with two water sites, 16 miles from Richmond, Va., on James River, is well adapted to the culture of wheat, corn, tobacco, oats and potatoes. The dwelling is spacious and has just been all put in complete order, and unsurpassed for beauty of position. There have been recently erected suitable buildings, barns, threshing machines, &c.; many springs of good water, well stocked orchard, good garden fences, &c. There are in the neighborhood two churches, post office, physician, and a saw and grist mill adjoining the premises. Also, a good and convenient market within a quarter of a mile, for all kinds of meats, fowls, vegetables, &c. There is a valuable coal mine working on the adjoining tract, and this property is estimated to abound in bituminous coal of first quality. Virginia lands can be purchased at 50 cts per acre, but the purchaser will remember he might as well settle in the interior of California. It is rarely such property is offered in market—it has the James River canal running through it, affording a cheap conveyance for all the produce. The situation is healthy and truly beautiful. The lands and proprietors in the neighborhood generally rich. It will be sold low, as the owner is compelled to sell. Apply to

J. B. DORSEY,

McCulloch's Buildings, New York, post paid.

June 1, 1848.—1t*

THE CULTIVATOR

Is published on the first of each month, at Albany, N. Y., by

LUTHER TUCKER, PROPRIETOR.

LUTHER TUCKER & SANFORD HOWARD, Editors.

\$1 per ann.—7 copies for \$5—15 copies for \$10.

Payable always in advance.

PUBLISHING AGENTS IN

NEW-YORK—M. H. Newman & Co., 199 Broadway;
BOSTON—Joseph Breck & Co., 52 North-Market-Street;
PHILADELPHIA—G. B. Zieber & Co., Booksellers;

Of whom single numbers, or complete sets of the back volumes, can always be obtained.

ADVERTISEMENTS inserted in the Cultivator, at the rate of \$1 per 100 words, for each insertion.

